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ARMY MEDICAL DEPARTMENT

REPORT

FOR THE YEAR 1906.

VOLUME XLVIII.

LONDON:
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ERRATUM.

The figures relating to France, quoted in the Introductory Letter, and shown in the Plates Nos. 3 to 9, include Algeria and Tunis so far as admission and death rates for "All Diseases" are concerned; but, as regards the rates for the particular diseases noted, they are the figures for Algeria and Tunis only. The comparison with France therefore must be considered as cancelled.

(699B)

33952

TO THE SECRETARY, WAR OFFICE.

SIR,

I have the honour to submit the accompanying Report on the Health and Sanitary Condition of the Army for the year 1906.

The form in which this Report is submitted differs from that of previous Reports, and a few words of explanation of this difference seem necessary.

Previous Reports have consisted in the main of two parts: a letterpress and a series of statistical tables. The latter were in the form of Abstracts of the detailed statistics furnished by various stations, at Home and Abroad, and gave figures relating to the chief diseases or classes of disease without mentioning the less important individual diseases in detail. The letterpress consisted largely of a discussion of these Abstracts, comparing them with similar Abstracts for previous years, and also mentioning in detail individual diseases or injuries not shown by themselves in the Abstracts. In addition, the letterpress contained an enumeration of any new works carried out during the year, though these works were often of very trifling nature and not in any way likely to affect the health of the Army as a whole, though doubtless having a certain local sanitary importance. It was felt that in a report of this nature too minute a recording of detail was apt to lead to overloading of the Report and to obscure its essential purpose, which should be to give a broad view of the incidence of disease in the Army and the general policy of prevention of disease that had been carried out during the year under review. It was also felt that the letterpress in its previous form was overweighted with dry discussions of figures and recapitulation of facts which could easily be ascertained by those interested in the subject by a reference to the tabular Abstracts at the end of the Report. It was decided, therefore, in making out the Report for 1906 to adopt a new system, which will now be described.

This Report is, as before, divided into a letterpress and a series of tables. The former gives a general history of the health of the Army, in its different stations, for the year, mentioning only the chief causes of disease, their incidence as compared with various years, and the general lines on which the problem of their prevention has been approached.

The tables, as before, consist of a series of Abstracts each referring to a different Command, on the same lines as in former years. At the same time, to avoid the risk of losing sight of any of the less important causes of inefficiency, detailed tables have been added which give the individual causes of admission to hospital for three of the five groups into which for this purpose the Army has been divided. Four of these correspond to the four most important geographical areas occupied by the Army, viz.: the United Kingdom, the Mediterranean Basin, South Africa, and India. The fifth group is composed of those smaller stations scattered throughout the world which, from the comparatively small figures furnished by them, are not of sufficient epidemiological importance to merit individual mention. This group is obviously a heterogenous one, and is only introduced to complete the picture.

It is hoped that the letterpress will now afford a good general view of the health of the Army, and prove of interest to those who wish to keep themselves abreast of the history of the service from a medical point of view. At the same time the Abstracts and detailed tables will furnish those who wish to go more deeply into any particular question with all important facts on any matter in which they are particularly interested.

In addition, as in previous years, the letterpress contains sections on Invaliding and Recruiting.

This being the first Report on these new lines it partakes in part of the nature of a retrospect, and where it has seemed likely to be of value, reference has been made to the medical history of former years. Taking the health of the Army as a whole, for the year 1906, and comparing it with that of previous years, it will be seen from Plates 1 and 2, which give curves showing the variations in Admissions, Numbers Constantly Sick, Invaliding, and Deaths, for the past 16 years, that there has been, on the whole, a distinct improvement. Thus, to begin with the Admissions to Hospital, it will be seen that these have fallen steadily during the past 16 years from nearly 1,000 per 1,000 of strength, to less than 600. To a certain extent this has been due, no doubt, to the introduction of the system of treating a considerable number of the slighter cases of disease or injury as outpatients, but the fall commenced some years prior to the introduction of this system. In all probability the chief cause of this reduction in the number of admissions is largely due to a reduction in the admissions for Venereal Diseases. In the year 1890 the admissions from Syphilis and Gonorrhœa in the two most important divisions of the Army, namely, those stationed in the United Kingdom and in India, were 196 and 376 per 1,000; during the year 1906 they had fallen to 68 per 1,000 and 88 per 1,000 respectively.

Other diseases have also shared in the general reduction. Thus, in the group of General Diseases (confining ourselves still to the troops serving at Home and in India, which form most continuously uniform in strength and composition of all the divisions of the Army), we find that there was a decrease in admissions of about 66 per cent. at Home, and about 30 per cent. in India. Tubercle of the Lung showed, in 1890, nearly 4 admissions per 1,000 of strength in the United Kingdom, and 3·26 per 1,000 in India. These figures had fallen in 1906 to less than 3 per 1,000 in the former case, and somewhat under 2 in the latter. Diseases of the Nervous System accounted for 9·3 admissions per 1,000 in the Army serving at home in the year 1890, and for 10·3 in the Army of India in the same year. In 1906 this group of diseases showed an admission rate of only 6·25 and 9·88 in the two Armies respectively. The admission rate for Diseases of the Circulatory System fell, in the 16 years under review, by nearly 75 per cent. at home, and 25 per cent. in India. Diseases of the Digestive System showed a decrease during the same period of 25 per cent. among the troops serving in the United Kingdom, and one of about 10 per cent. among those serving in India. The above facts show that the improvement in the general health of the Army, since 1890, cannot be attributed to a decrease in the incidence of one particular disease, but to a general improvement in all directions. It is probable that one great cause of this is the increase of temperance in the Army during late years, but the greater proportion of the improvement may fairly be attributed to improved sanitation, both as regards the housing and clothing of troops, and also as regards increased knowledge of how to combat disease, not only on the part of the Medical Department, but that of the Army in general.

It is of interest to compare the health of the British Army with that of Foreign Armies. Plates Nos. 3 to 9 show the Admission and Death Rates for All Diseases, and for the following specially important forms of disease, viz.: Enteric Fever, Tubercle of the Lung, Cardiac Affections, and Venereal Diseases, in the British Army serving in the United Kingdom, and in the Armies of France (1904), Germany (1903-4), Austro-Hungary (1904), Russia (1904), and the United States of America (1905). The figures given are the latest available in each case, and troops serving out of the Home Country are in all cases excluded. The inevitable errors due to unaccustomed surroundings, inexperience of troops in tropical climates, &c., are thus excluded.

Taking All Diseases we find that the United States Army heads the list with the enormous admission rate of 1,250 per 1,000. After this come the French, German, and Austrian Armies all above 600. Fifth in the list is the British Army, serving in the United Kingdom, and lowest of all, the Russian Army with the low figure of 324 admissions per 1,000. Too much stress must not, however, be laid on these figures when used for purposes of

comparison. They are naturally to a great extent dependent on the regulations as to out-patient treatment and other service customs, which vary considerably in different armies. The high rate of admission in the American Army is due, as pointed out in the Report of the Surgeon-General, in part to the fact that "the admissions include all soldiers who are excused from any part of their military duties." As regards death rates we see (Plate No. 8) that here again the American Army leads with a ratio of 6·14 per 1,000; the British and French Armies come next with a figure about half that of the above; the lowest of all is the German Army. These figures are also liable to be affected by the customs of the different services, though this is less likely to be the case than with the admission rates. The high death rate of the Russian Army as compared with its low admission rate points to a considerable use of the out-patient system in this army.

Taking individual diseases or groups of diseases we find that as regards Enteric Fever the French Army suffers by far the most of all the armies under discussion, its admission rate of 14·1 per 1,000 being not much below that of the British Army in India, viz., 15·6 per 1,000 for 1906. The Russian and United States Armies come next with 3·8 and 3·57 per 1,000, then the Austro-Hungarian and German Armies, while the British Army occupies the lowest place. In respect of the death rates from Enteric Fever the same relative positions are more or less maintained, though the Russian Army shows a death rate per admissions of nearly 20 per cent., which brings it considerably higher in the list than the American Army. The Army of Great Britain is here again the last of the series.

As regards Venereal Diseases, the American Army again comes first with the very high ratio of 178·72 per 1,000; the British Army second with 81·8. It is noteworthy, however, that in the case of the American Army the admission rate for these diseases has been steadily increasing for the last nine years, whereas in our Army it has been steadily falling for a considerable period. The French and Austro-Hungarian Armies come next, followed by the Russian Army at a slightly longer interval, while the German Army comes last with the very low ratio of 19·8. The problems connected with the incidence of Venereal Disease are so complex that it is not easy to say to what causes the variations in this form of inefficiency are due. The low figures shown by the various Continental Armies might be held to point to the efficacy of the regulation of prostitution carried out in those countries. It is difficult on this basis, however, to explain the variations in the different Continental Armies, all of which are fairly equally protected in this manner. It might with equal strength be argued that the high admission rates in the American and British Armies were due to the fact that these armies are maintained by voluntary enlistment, while in Continental Armies the repressive measures directed towards the liberty of the men, and even more, the amount of hard physical labour demanded of them, are in great part the cause of the low ratios they show. The rates of pay, and especially the amount of spare cash possessed by the rank and file, are also important factors, these being much higher in the British and American Armies than in any Continental Army.

As regards Tubercle of the Lung, France and America again head the list, England and Russia come together with ratios less than one-half those of the two first-named nations. Germany and Austro-Hungary come last with ratios about one-half of the English and Russian Armies. The deaths due to this cause are considerably more numerous in the American than in the French Armies, and in the Russian than in the English. The lowest place is again occupied by the German Army, the British and Austro-Hungarian Armies occupying an intermediate place. On this point, however, it may be noted that a fair comparison cannot well be made between the different Armies, since in some the hopeless cases are retained, while in others they are sent to their homes to swell the statistics of the civil population.

Cardiac Affections are much more prevalent, as will be seen from the Plate, in the Army in the United Kingdom than in any other Army. America and Germany come next, France and Russia about level, and Austro-Hungary last of all. The high rate in the British Army is usually attributed to the poor condition of the recruit on enlistment, and the severity of the training through which he has, till lately, been put. In this last

respect considerable changes have been made during the past year, the training having been made more elastic in its application, and more gradual in its course. In the death rates for Cardiac Affections the above order is fairly well maintained. Here, also, the customs of the different services as regards the discharge of hopeless cases must be considered.

In the British Army, which serves in so many different quarters of the globe, a comparison between the different ratios of disease prevalence in the different geographical areas cannot fail to be of interest. For this purpose the stations occupied have been arranged in five main groups as already detailed in an earlier portion of this letter, viz.: the United Kingdom, the Stations of the Mediterranean Basin, South Africa, India, and "Other Stations." The significance and *raison d'être* of this last group has already been alluded to. Taking the United Kingdom and comparing it with the other four groups taken together, we find a series of ratios giving us the effect of foreign service as a whole. These figures are given in the subjoined table:—

1906. Troops serving.	Ratio per 1,000 of Strength.				
	Admitted.	Died.	Sent home as Invalids.	Discharged as Invalids.	Constantly non-effective from sickness.
At Home ..	446·7	2·92	—	14·40	24·86
Abroad ..	734·48	8·30	25·00	8·90	43·00

From the above figures it will be seen that the effect of foreign service is to increase all the ratios except that representing men discharged from the service. The total loss due to death is about trebled by foreign service, the increase being due mostly to the more acute forms of disease, *e.g.*, Enteric Fever in India, Malta Fever in Malta, Malarial Fevers in Mauritius, Straits Settlements, and West Africa.

The loss due to discharge as invalids is not increased by foreign service. This appears to be due to two main causes. The first, that the men who go abroad are carefully inspected before selection for foreign service, and the obviously unfit or those who show signs of incipient disease, *e.g.*, Tuberculosis or slight Cardiac inefficiency, are retained in this country, thus not only relieving the foreign invaliding rate but possibly adding to that of the troops serving at home. The second, that a considerable number of men are sent home from abroad for change who are able still to remain in the service, who would be lost to it if they had not received the advantage of an early change of climate. It will be seen from the table given above that 25 men per 1,000 of all men serving abroad were sent home during the year, and that 8·90 of these were permanently discharged as unfit; this leaves a balance of about 16 per 1,000 retained. These men are mostly sufferers from the more chronic forms of tropical disease, and it is a fair assumption that about two-thirds of them would, if retained abroad, have eventually swelled the death or permanent invaliding rates. This would give a total loss due to death and discharge of about 19 per 1,000 as compared to 16 per 1,000 in the Army at home. As it is, a certain number of these, though they recover sufficiently to return to the ranks at home, subsequently break down and have to be invalided out of the service for the original disease; what this number may be is doubtful, but it is in any case small compared with the two-thirds above calculated for. As a net result it may be stated that the total wastage of the Army is not materially affected by foreign service as a whole, though the death rate is considerably enhanced thereby. As regards constant inefficiency, the effect of foreign service was to raise the numbers constantly sick from a little under 25 to 43 per 1,000. In other words, every man at home was inefficient for 9 days in the year, every man abroad for 15½, the balance in excess, of 6½ days, being the loss to the State due to foreign service.

In the next table we have the figures for the Home Army and for each of the foreign groups, taken separately :—

1906. Troops serving.	Ratio per 1,000 of Strength.				
	Admitted.	Died.	Sent home as Invalids.	Discharged as Invalids.	Constantly non-effective from sickness.
United Kingdom	446·7	2·92	—	14·40	24·86
Mediterranean Stations ..	515·5	4·07	25·65	9·89	33·99
South Africa	422·2	4·28	13·44	7·89	27·69
All other Stations.. ..	693·8	6·33	32·70	10·31	43·21
India	871·0	10·81	28·37	9·39	51·47
On board ship	761·3	3·90	—	—	—

South Africa takes the first place for healthiness of all foreign groups. Except in the matter of deaths, which are fractionally higher, it shows a marked superiority to the Mediterranean group, which occupies the second place. The invaliding, both for change and as permanently unfit, is distinctly lower, while the constant inefficiency is from one-fifth and one-sixth less. As regards invaliding, the Mediterranean group occupies a position not much better than India, the total discharges being, in fact, slightly higher than in the latter country. The death rate of India is, on the other hand, far higher than that of any other group, and makes the total wastage, by death and discharge, equivalent to about 20 per 1,000, the highest of all the four foreign groups. The heterogeneous group of "Other Stations" comes next with about 16 per 1,000, the Mediterranean Basin with 14, and South Africa with 11 per 1,000. As regards constant inefficiency due to sickness, India again gives the highest figure, being about 25 per cent. higher than the "Other Stations," and 33 per cent. above the Mediterranean Basin.

I have the honour to be,

SIR,

Your most obedient Servant,

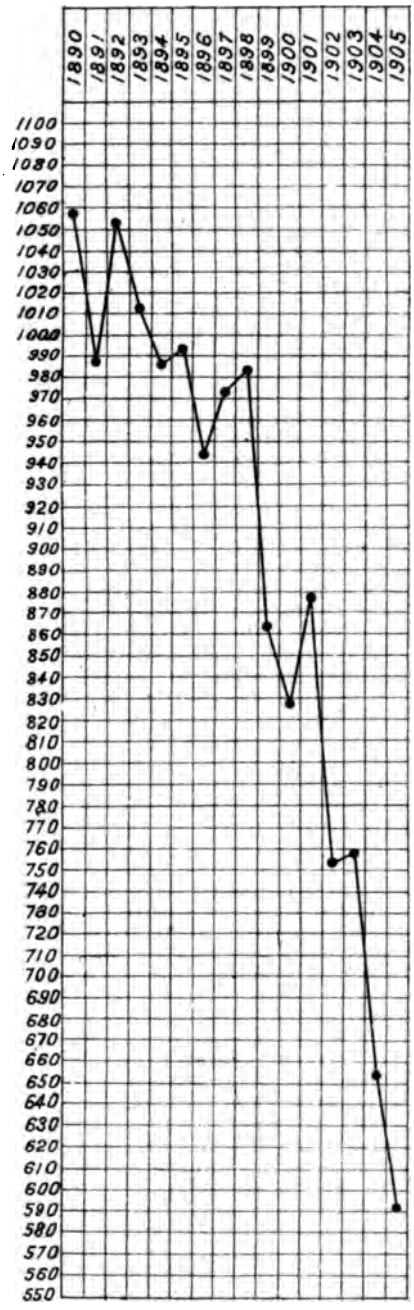
A. KEOGH,

Director-General.

MEDICAL DIVISION, WAR OFFICE.

TROOPS AT HOME AND ABROAD

Plate No. 1. RATIO PER 1,000 OF STRENGTH.



ADMISSIONS _____

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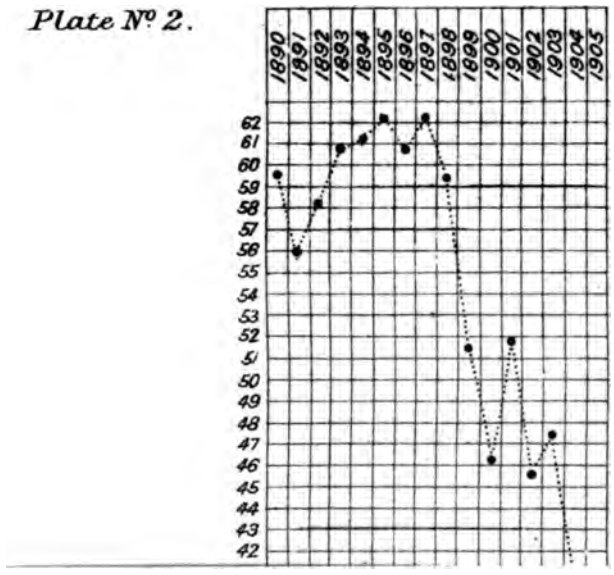
TROOPS AT HOME AND ABROAD.

RATIO PER 1000 OF STRENGTH.

Plate No 2.



ERRATA.

With reference to Plate 2, on page ix, the indicating lines shown at the foot of the plate against "Died" and "Constantly Sick," "Non-effective from Sickness," should be reversed.

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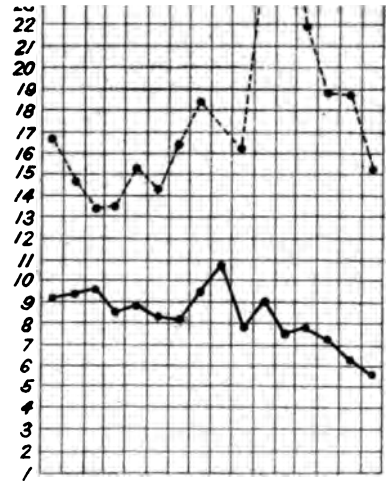

DIED.....

DISCHARGED AS INVALIDS.....

CONSTANTLY SICK, NON-EFFECTIVE FROM SICKNESS,

1000. 07

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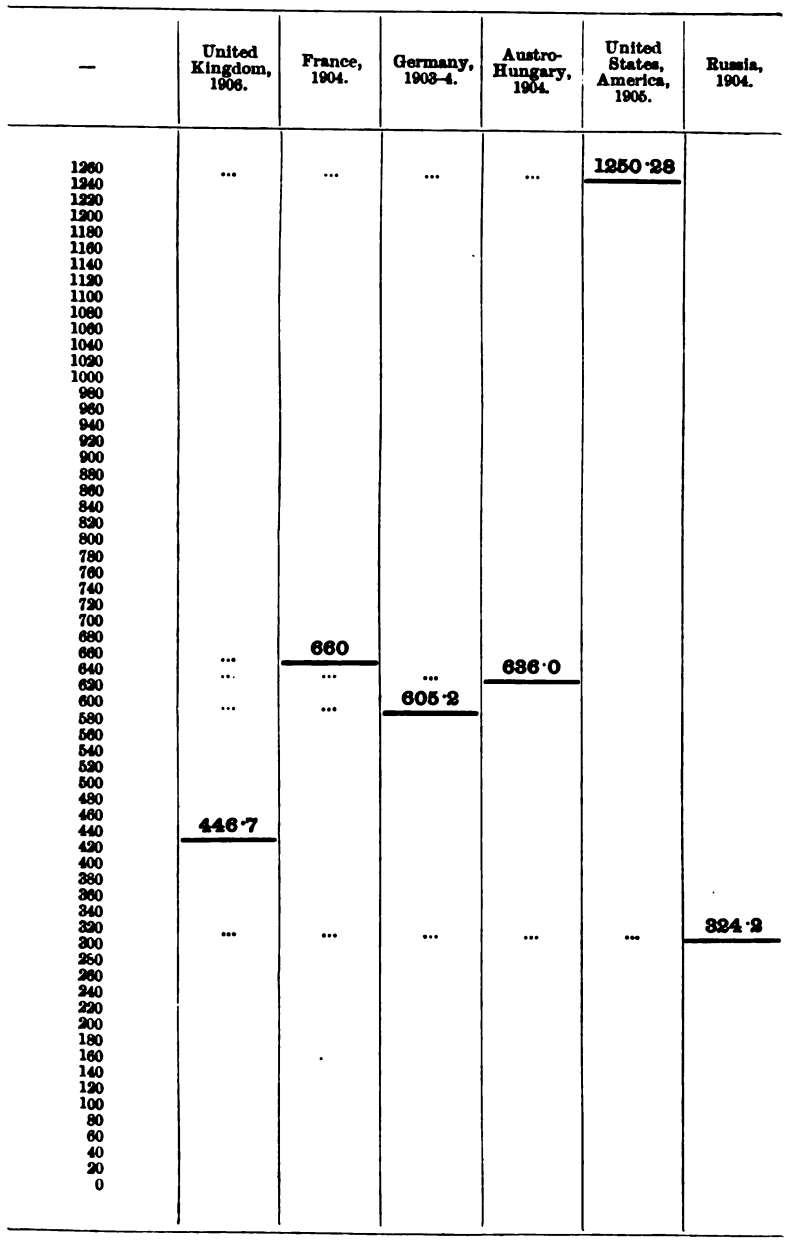
HEALTH STATISTICS OF FOREIGN ARMIES.

All Diseases.

Admissions. Ratio per 1,000 *of Strength.*

Plate No. 3.



HEALTH STATISTICS OF FOREIGN ARMIES.

Enteric Fever.

Admissions. Ratios per 1,000 *of Strength.*

Plate No. 4.

—	United Kingdom, 1906.	France, 1904.	Germany, 1903-4.	Austro-Hungary, 1904.	United States, America, 1905.	Russia, 1904.
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PLATE No. 4—*continued.*

—	United Kingdom, 1906.	France, 1904.	Germany, 1903–4.	Austro-Hungary, 1904.	United States, America, 1905.	Russia, 1904.
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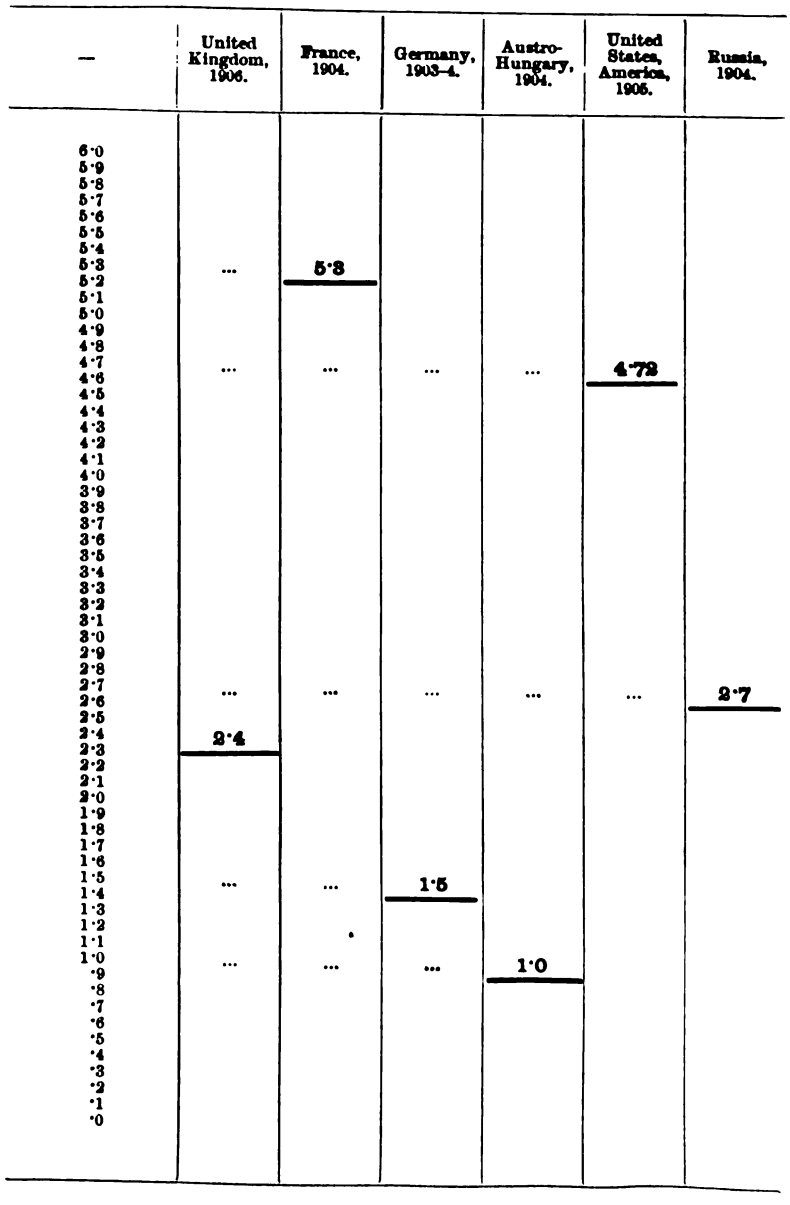
HEALTH STATISTICS OF FOREIGN ARMIES.

Tubercle of Lung.

Admissions. Ratios per 1,000 *of Strength.*

Plate No. 5.

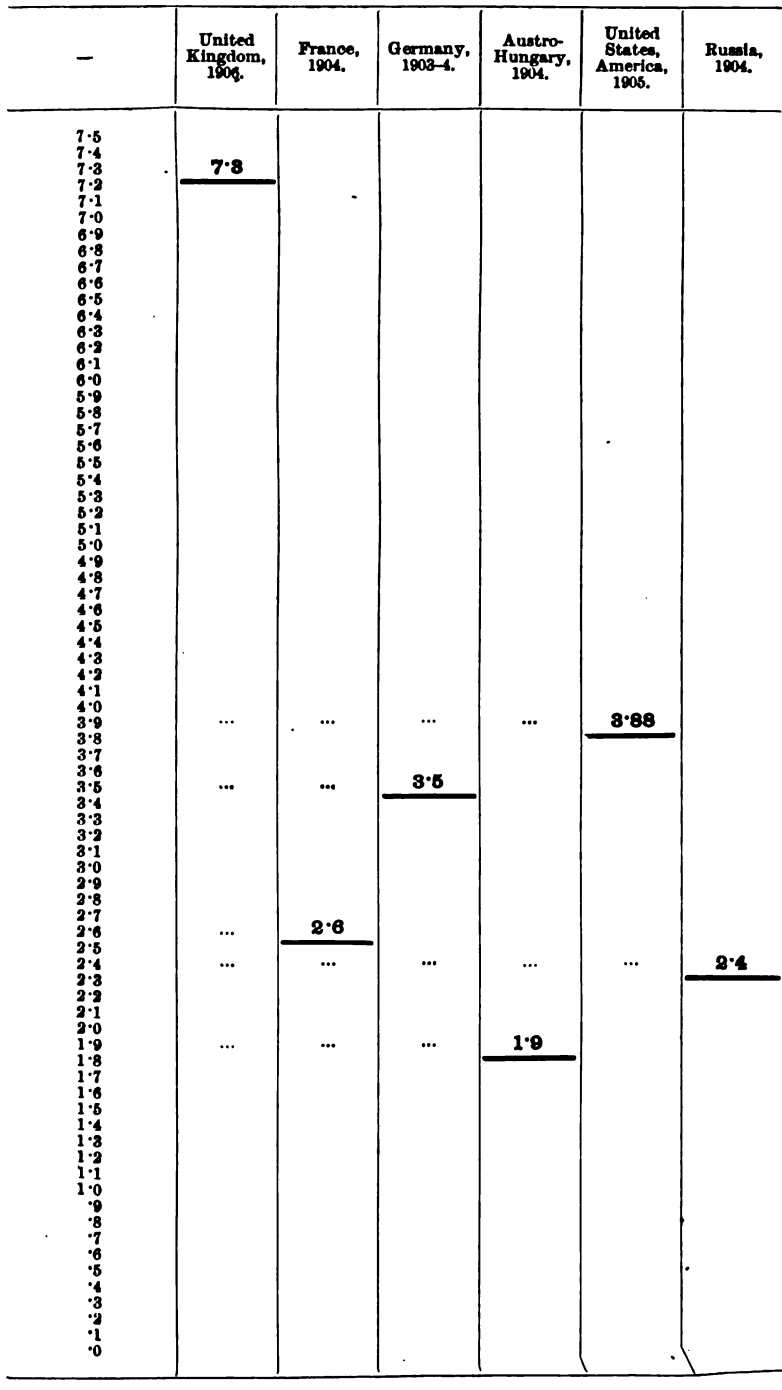


HEALTH STATISTICS OF FOREIGN ARMIES.

Cardiac Affections.

Admissions. Ratios per 1,000 *of Strength.*

Plate No. 6.

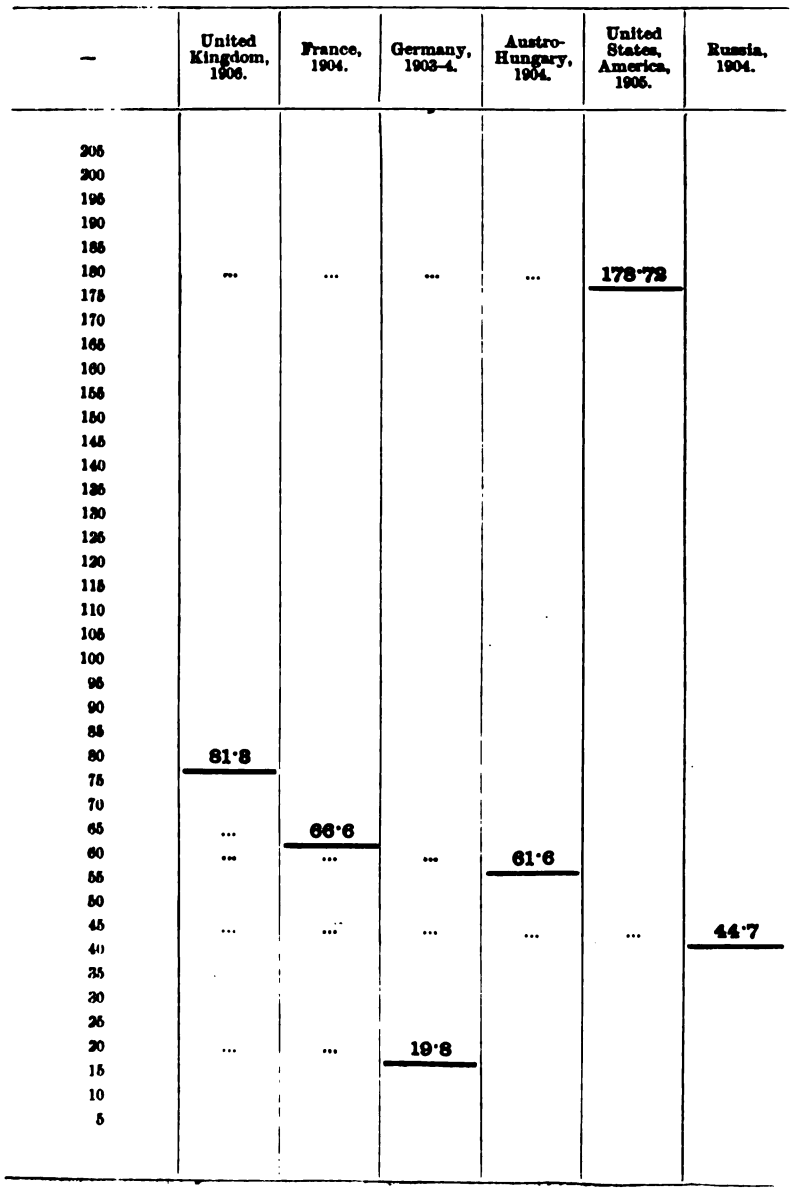


HEALTH STATISTICS OF FOREIGN ARMIES.

Venereal Diseases.

Admissions. Ratios per 1,000 *of Strength.*

Plate No. 7.

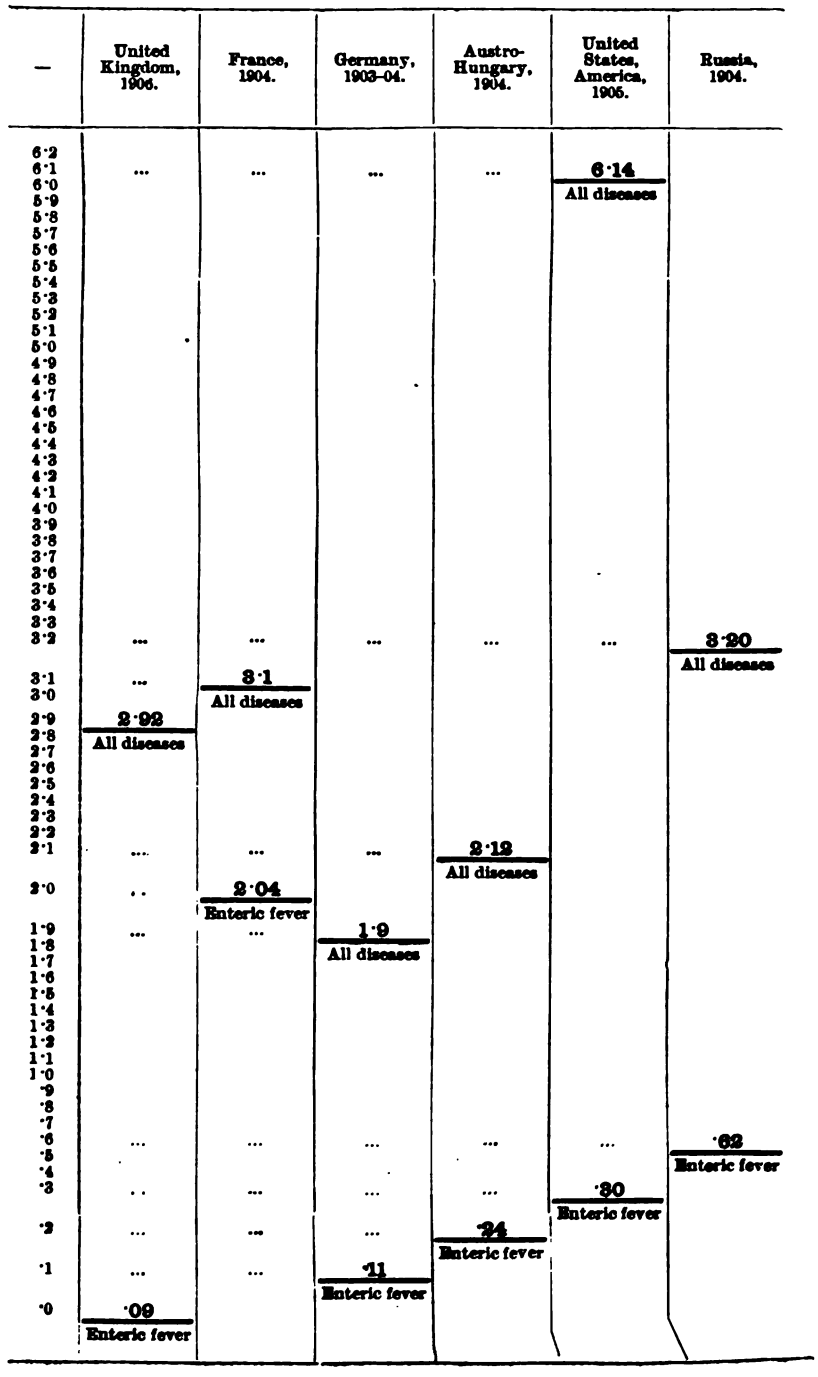


HEALTH STATISTICS OF FOREIGN ARMIES.

Deaths.

Ratios per 1,000 *of Strength.*

Plate No. 8.

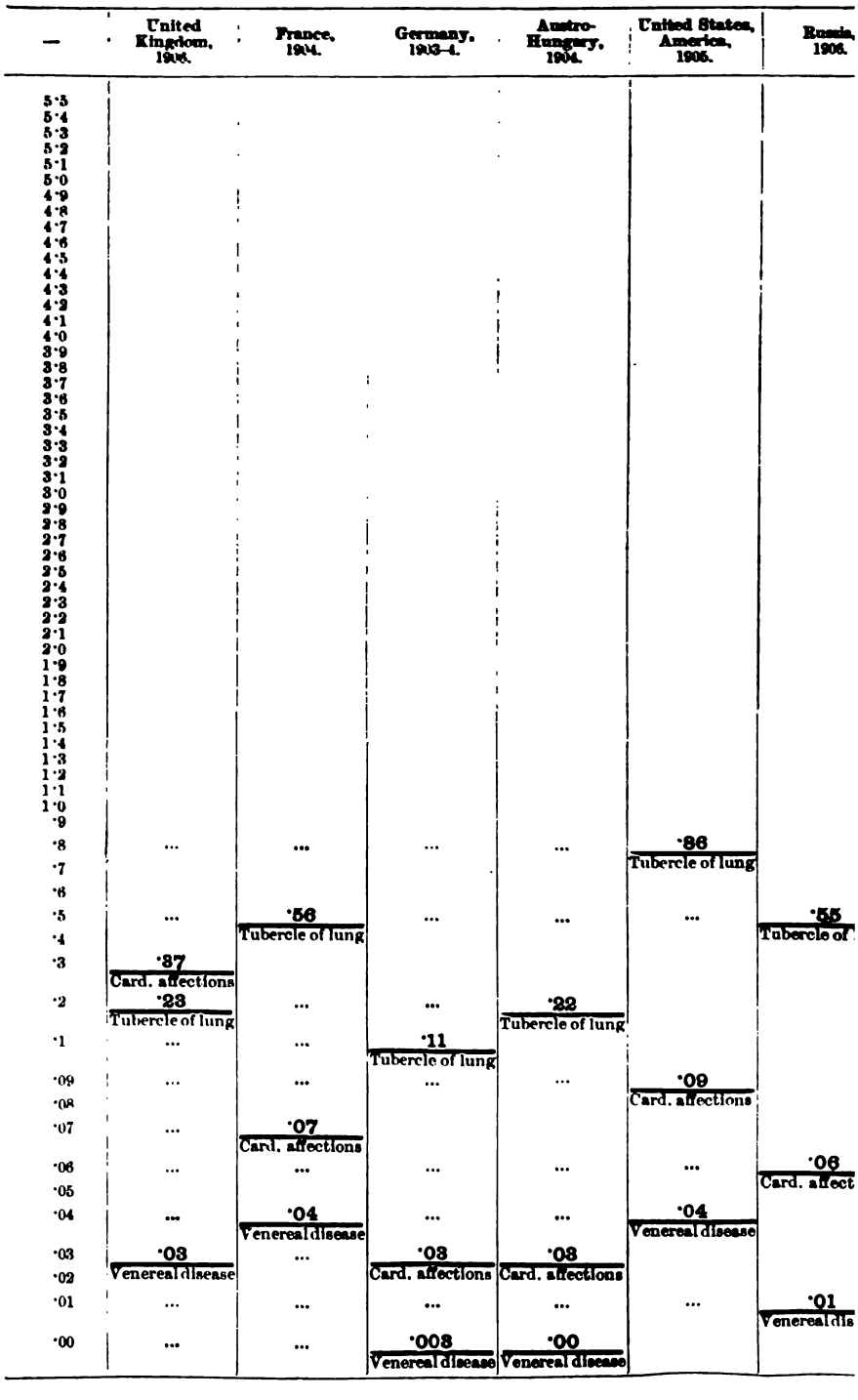


HEALTH STATISTICS OF FOREIGN COUNTRIES.

DEATHS.

Ratios per 1,000 *of Strength.*

PLATE No. 9.



CONTENTS.

ARMY MEDICAL DEPARTMENT
REPORT FOR 1906.

ARMY MEDICAL DEPARTMENT REPORT FOR 1906.

1.—MEDICAL EXAMINATION OF RECRUITS.

United Kingdom.

With very few exceptions, candidates for enlistment in the Army, exclusive of boys, are accepted between 18 and 25 years of age.

In certain sections of a few special corps the minimum age is above 18.

The lowest requirements of height and chest girth are the standards laid down for infantry of the line, Army Service Corps (except drivers), Royal Army Medical Corps, and ordinary recruits of the Army Ordnance Corps.

Men of 5 feet 3 inches in height who can expand their chests to 33½ inches are eligible for these corps provided they have a range of chest expansion of not less than 2 inches. A higher standard of physique is demanded from all other recruits.

A few men possessing special qualifications are occasionally enlisted, even should they come short of the minimum standards above mentioned. Since March, 1905, increased attention has been paid to the medical examination of candidates for enlistment, and special instructions have been given to recruiting medical officers. Whenever possible recruits of doubtful physique are seen by the Medical Inspector of Recruits in consultation with the recruiting medical officer.

The standard of examination has become more uniform, and levelled up as much as possible to that of the best and most discriminating recruiting medical officers, and, though stricter, is more reasonable.

This gives a better selection of recruits, and is a decided improvement, even should the ratio of men rejected remain unchanged.

Many cases of astigmatism, hypermetropia, lesions of the retina of the eye, adenoids, hypertrophied tonsils, disordered action of the heart, varicocele, undescended testicle, varicose veins, deformities of the feet and toes, &c., which would have been accepted in former years, are now rejected.

On the other hand, many cases of defective vision, flat feet, and certain other defects which would have been rejected formerly are now accepted. More importance is paid to a recruit proving his efficiency by practical tests than by mere symmetry of his body. The men rejected are not all lost to the service, as great care is taken to advise those suffering from defects which can be remedied by operation to have this carried out, and then return for enlistment, and the great majority act on this advice.

No medical examination can increase the number of men of good physique in the Army, but much can be done to improve the average physique by a careful selection of recruits on the border line, and by the rejection of "weeds."

A proof that the average quality of the recruits finally approved is higher than it used to be is that the ratio per 1,000 of men discharged medically unfit within three months of enlistment has fallen from 11·75 in the period 1896–1905 to 10·69 in 1906; nor do these figures tell the whole truth, as never before were such efforts made to eliminate as soon as possible recruits who were not likely to become efficient soldiers.

The recruits were all re-examined on joining a Depôt or Unit, and those with decided defects were noted and kept under special observation. In re-examining the men every effort was made to avoid drawing the recruits' attention to any imperfections that were noted.

Except in very obvious cases no recruit was discharged from the Army on medical grounds until, after prolonged trial, his inefficiency was clearly proved by his inability to perform his military duties and, in suitable cases, not until treatment in hospital had failed to improve his condition.

The effect of this weeding out of the unfit should be to diminish in after years the number of trained men invalided from the Army.

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The general facts regarding the number of recruits inspected in the United Kingdom during 1906 and the number rejected on inspection, and also those discharged medically unfit within three months of enlistment, are shown in Table I.

This table gives the ratios per 1,000 of the men rejected and discharged.

Table Ia gives similar information for the decade 1896-1905.

The proportion per 1,000 of men rejected, and of those discharged medically unfit within three months of enlistment, is fewer by 9·31 and 1·15 respectively in 1906 than in the previous ten years. This is a gain to the service of 10·46 per 1,000 of the total number inspected.

The improvement is partly due to the greater care exercised by recruiting agents in accepting candidates for enlistment, and partly to a more efficient medical examination. A less severe form of physical training has also probably helped to diminish the number of recruits discharged in 1906 within three months of enlistment.

The total number of recruits rejected on inspection is unduly swelled by men who are rejected at one recruiting centre and subsequently making efforts to pass at other centres. Men also who are remanded for operative treatment prior to enlistment, and who are afterwards passed into the Army, are included in the rejections.

The total number of rejections cannot be accepted as a true index of the state of health of recruits, as many are rejected on account of being under the standards of height, chest girth, and age, and not for reasons bearing directly on their health.

The native countries of recruits and the ratio of rejections per 1,000 inspected in each country is shown in Table II.

Table IIa gives similar information for the period 1896-1905.

The proportion per 1,000 of recruits furnished by each country has fallen in Scotland from 92 to 82, and in Ireland from 116 to 100.

A striking change is seen in the ratio of men rejected on inspection in Ireland; in 1906 the proportion so rejected was 305·97 per 1,000 inspected, while in the previous 10 years the proportion was 323·48 per 1,000.

Table III gives the number of recruits rejected on inspection during the year 1906, according to the different causes of rejection, arranged in classes, and the ratio per 1,000 of rejections in each class, the same information being also given regarding recruits unfit within three months of enlistment. Table IIIa gives similar information for the period 1896–1905.

On examining these tables, it is seen that a considerable increase has taken place in the ratios per 1,000 of men rejected on inspection for the following causes: —

Impaired constitution and debility	... Increase	=	2·45 per 1,000
Diseases of eyes and eyelids	„	=	1·28 „
Diseases of nose and mouth	„	=	1·36 „
Disease of ears	„	=	1·97 „
Disease of heart	„	=	12·59 „
Loss or decay of many teeth	„	=	19·54 „
Defects of lower extremities	„	=	5·42 „
Ulcers, wounds, and cicatrices... ...	„	=	1·49 „
Other affections of cutaneous system ...	„	=	1·05 „

The ratios per 1,000 inspected of men rejected for the following causes show a decided decrease:—

Defective vision	Decrease	=	9·76 per 1,000
Disease of veins (varix)...	„	=	1·97 „
Varicocele	„	=	·62 „
Defects of upper extremities	„	=	·85 „
Flat feet	„	=	6·03 „
Under height	„	=	6·16 „
Under chest measurement	„	=	17·21 „
Under weight	„	=	14·02 „

There has been a slight increase in the ratios per 1,000 rejected as unfit within three months of enlistment for the undermentioned causes :— *United Kingdom.*

Other general diseases	Increase =	·70	per 1,000
Disease of ears	„ =	·43	„
Disease of heart	„ =	·46	„

The following causes of discharge under three months service show decreased ratios :—

Defective vision	Decrease =	·05	per 1,000
Deafness	„ =	·09	„
Loss or decay of many teeth	„ =	·80	„
Defects of lower extremities	„ =	·21	„
Flat feet	„ =	·41	„

The principal causes of rejection in 1906 are briefly commented on in the following remarks :—

Impaired Constitution and Debility.—Many cases are now entered under this heading which would formerly have been classed as underweight. There is no standard of weight, and therefore men cannot be rejected for weight alone. The cause of the loss of weight has to be ascertained. The group yields a high proportion of recruits discharged medically unfit within three months of enlistment. This cannot be avoided. Poorly fed recruits and those who have led an indoor life have to be accepted more or less on trial, and a proportion of them will always break down. A very strict medical examination would probably keep out most of those weaklings, but in so doing many hundreds of men would be rejected who might have developed into excellent soldiers.

Weakness of Intellect.—In no other class does the ratio of men discharged under three months' service so nearly approach that of men rejected on inspection. It is not always easy to distinguish merely uneducated men or country lads from those of defective intelligence. Uneducated men often seem to be stupid because it is difficult to test their intelligence at a brief interview. Country lads frequently appear to be slow in mind and body. Both classes have difficulty in understanding the language of the medical examiner. A few weeks' instruction, however, develop the uneducated and the country recruits into good soldiers, but those of defective intelligence show no signs of progress.

Defective Vision.—Hitherto the number of men lost to the Army on account of defective vision was about nine per cent. of all rejections, although the standard of vision required was but a quarter of the normal acuteness in each eye.

Men with high errors of refraction and those with serious lesions of the retina were frequently able to pass the test dot standard, while men with normal vision in one eye were rejected if the acuteness of vision in the other eye was below a quarter of the normal. The former would barely see the target, while the latter might be first-class shots.

The test dot standard of vision consisted in the counting of black dots one-fifth of an inch in diameter on a white card held ten feet from the recruit. The distance was only five feet in the case of recruits for the Royal Army Medical Corps and departmental corps. With average normal acuteness of vision the dots should be seen at a distance of forty-three feet. A committee was appointed in 1904 to select a better standard of vision. The committee reported that—

> "The average visual acuity of men barely counting the test dots may very fairly be expressed as $\frac{6}{54}$th, that is, men are passed with one-sixth of normal acuteness of vision. The test dot method admits high hypermetropes and astigmatics, and even men with serious peripheral fundus lesions. Another objection to their use is that they lend themselves to the making of fraudulent answers and successful guesses."

The Committee recommended the adoption of Snellen's test letter types, and these were brought into general use throughout the United Kingdom by October, 1906.

Black letters of different sizes are printed on a white card, and the distance in metres at which each letter can be clearly seen by the normal eye is noted on the card. The card is shown to the recruit at a distance of 6 metres (20 feet).

The standard of vision for all recruits, except those for the corps of Army Schoolmasters, is fixed at

(*a*) A quarter of normal acuteness of vision in each eye, or,

(*b*) $\frac{6}{36}$ths vision in one eye, provided the vision in the other eye is normal.

In each case the eye is tested without glasses. The letter types are a more severe test for *one* eye than the dots. They principally exclude astigmatics. Men, however, with high degrees of hypermetropia, or with peripheral fundus lesions, who would have been passed by the test dots, are now rejected. In the report of the Committee it was shown that at St. George's Barracks during a period of one month the new standard of vision reduced the total number of rejections for defective vision by one-third. This was almost entirely due to the number of men accepted with vision in one eye as low as $\frac{6}{36}$ths of the normal.

The degree of acuteness of vision is accurately determined by the letter types. This is now recorded on the medical history sheet of every recruit, and changes in the acuteness of vision can be ascertained in after years.

Recording the acuteness of vision ensures that the examination of the eyes has not been overlooked. The introduction of the type test has very much reduced the number of recruits who complain that they cannot see properly.

Disease of the Ear.—This disability is of importance because it is the cause of rather a high ratio of men being discharged under three months' service. It is difficult to thoroughly examine ears filled with wax, &c. A number of recruits also present themselves for enlistment immediately after receiving treatment at some hospital, and having had a discharge from the ears temporarily cured.

The disease, however, soon recurs.

Disease of the Heart.—Affections of the heart cause the third largest number of medical rejections of recruits. The disability is practically confined to valvular lesions and disordered action of the heart. Of the latter, the variety due to abnormal rapidity is by far the most important. Irregularity and intermissions unaccompanied by great rapidity of heart's action are rarely a cause of rejection. Abnormal slowness is seldom objected to. It is a question whether too many recruits are not rejected for affections of the heart.

Professor Osler considers that—"With an apex beat in the normal situation and regular in rhythm the auscultatory phenomena may be practically disregarded." This opinion should encourage medical officers to pass desirable recruits of good physique whose only defect is the presence of cardiac murmurs. The cases should, of course, be very carefully selected, and the effect of smart exercise should invariably be observed. Recruiting medical officers will, however, not knowingly take the responsibility of enlisting men with cardiac murmurs unless all medical officers recognize that murmurs of themselves do not necessarily incapacitate soldiers from military duty.

Recruits whose only cardiac defect is moderate abnormal slowness, irregularity, or intermissions, can safely be accepted, provided they are of good physique and show no distress when tested by sharp physical exercise. Excessive degrees of abnormal rapidity of heart, or milder degrees of it when complicated with irregularity, seriously interfere with the efficiency of a soldier. A record of the pulse of every recruit, noted at the time of

his enlistment, would elucidate valuable information on this point. Each case must be judged on its merits, but, as a rule, men should not be passed into the service when, after smart physical exercise for five minutes and then a rest sitting down for ten minutes, the heart beats 120 or upwards per minute. The ratio of men discharged medically unfit within three months of enlistment owing to affections of the heart is high. *United Kingdom.*

Men break down in training, and, in some instances, the lesions probably escaped the notice of the recruiting medical officer. It is very easy to forget to examine some organ of the body, or to omit to auscultate the base of the heart, when one is very busy or interrupted in any way. In all probability fewer recruits will break down in future, as the Swedish system of physical training introduced into the Army in January, 1907, is milder and more progressive than the one it superseded.

Disease of Veins.—This disability can nearly always be remedied by operation. In one or two instances operations on varicose veins of the lower extremities have not been successful. The men afterwards suffered so much from œdema of the legs and feet that they had to be discharged from the service.

Loss or Decay of many Teeth.—The Regulations direct that a recruit must have sufficient teeth to permit of efficient mastication, and that the loss of teeth which would cause the rejection of a man of indifferent constitution might be no bar to the acceptance of a thoroughly robust recruit. So many men had to leave the fighting line in the late South African War owing to loss of teeth, that ever since recruiting medical officers have been apt to demand too high a standard of masticatory efficiency. No account was taken of the hundreds of almost toothless men who went through the campaign and remained quite well, nor of the exceptionally trying conditions of that war. Men were run down by prolonged hardships and nerve strain, and in many instances were tainted with scurvy. Under these circumstances it was only natural that teeth should become loose or decay. Defective or deficient teeth have caused very little invaliding from the Army, except during the war in South Africa, as is evidenced by the fact that this cause of invaliding has not been of sufficient importance to merit mention in the Annual Reports.

In April, 1906, medical officers were instructed that, in doubtful cases, the well-nourished appearance of a recruit should be accepted as strong proof that his masticatory efficiency was sufficient, and that this efficiency was to be estimated for average conditions of European warfare, and not for the most trying conditions of climate or active service. Front teeth and stumps are very effective masticatory agents, and should be taken into account.

About 19 per cent. of all recruits rejected on inspection are lost to the Army owing to deficient or defective teeth. The case is more serious when it is recognized that the possession of defective teeth goes with good physique quite as often as with poor physique. On the other hand, it must be remembered that if the men with defective teeth are, as a whole, of the same physique as the general body of recruits, then the same proportion of them will be medically unfit for reasons other than dental efficiency, as obtains among all candidates for enlistment. In other words, practically one-third of the recruits rejected for defective teeth would be excluded whatever tooth standard was in force. In the Northern Command, however, it was found that two-thirds of the men rejected for defective teeth were medically unfit on other grounds. This estimate was founded on the careful and complete examination during one month of all recruits rejected for defective teeth at half a dozen of the principal recruiting centres in the Command. There are no available statistics which discriminate between the recruits rejected for loss of teeth and those rejected for defective teeth.

Nothing can be done to diminish the number of men excluded from the Army by loss of teeth. It is recognized that the supply of dentures to

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recruits is a mistake. Dentures are very expensive, and at any moment the soldier can destroy them in order to avoid foreign or active service.

There is no objection, however, to "stopping" the defective teeth of recruits. It is entirely a question of expense. From a public point of view the problem is how much money should be expended on dental treatment in order to render a recruit eligible for the Army who otherwise would be rejected for defective teeth?

In the Northern Command an attempt was made in 1905 to ascertain the number of men who could be enlisted after their defective teeth had been "stopped," and who would otherwise have been rejected.

Dental treatment for recruits of this class was given to all who enlisted in the Command in 1906. The number of candidates for enlistment so treated during the year was 1,223 at a total cost of £476 10*s.* 3*d.* This comes to an average cost of 7*s.* 9*d.* per head. The number of recruits rejected in 1906 in the Northern Command for deficient or defective teeth was 691, or 77·54 per 1,000 of those inspected. The proportion rejected for deficient or defective teeth throughout the rest of the United Kingdom in 1906 was 56·64 per 1,000 of those inspected. It is evident that unless the standard of masticatory efficiency was very much higher in the Northern than in other Commands, that many recruits received dental treatment in that Command who would have been accepted elsewhere without treatment. As experience is gained it is probable that the proportion of candidates for enlistment who are selected for dental treatment may be greatly diminished. In any case the addition to the Army of good recruits at an average cost of 7*s.* 9*d.* per head is most desirable.

One Command dental surgeon cannot overtake all the dental work in connection with the recruits. The only feasible system is to have a contract for each garrison with the local dental surgeon.

Hernia.—In future the number of young soldiers discharged unfit on account of hernia will probably be much less than has hitherto been the case. The new system of Swedish physical training is milder and more progressive than the one it has superseded, and therefore recruits in soft condition and those with a tendency to hernia will be less liable to rupture. Only in rare cases should a soldier suffering from hernia, and who refuses operative treatment, be discharged from the Army. As a rule these men can quite well perform all their military duties if they are fitted with a truss. Care should be taken that men who have been operated on for hernia should be excused the more severe exercises in physical training for six months.

Varicocele.—It is probable that the importance of this defect has been over-estimated in past times, and a more lenient view is now taken of its presence. A definition of what might be called a "standard" varicocele has been formulated. No defect is more useful to the unwilling soldier than varicocele. It is impossible to be certain that the pain complained of does not exist. The mere size of the varicocele is very little guide as to the probability of pain being really there.

Defects of Lower Extremities.—Men who can get along quite well in civil occupations in which they do not require to walk much, or in which they can wear loose or soft shoes, are very often quite incapable of marching in stiff military boots. In a large number of cases the disability can only be discovered after enlistment. Probably the most striking physical change in recruits in recent years has been the improvement in the shape of their feet. Deformities are much less common owing to the well-fitting boots that can now be obtained. Stiffness of the joints of the great toes, overlapping of the great toe over the second toe or of the second toe over the great toe, hammer toe (second toe), and bunions are the principal defects of the lower extremities which cause inefficiency. Overlapping of the toes can sometimes be remedied by operation. In the case of hammer toe partial excision of the first interphalangeal joint of the second toe gives most satisfactory results. Men will submit to this small operation who would never agree to "amputation." The presence of the shortened second toe prevents

the outward displacement of the great toe, and the fact that the partial excision leaves the joint movable enables the recruit to "hop" correctly. *United Kingdom.*

Flat Feet.—Since July, 1905, there has been a large diminution in the proportion of recruits rejected for flat feet. On that date medical officers were instructed not to reject men as long as they could "hop" correctly on the toes of each foot, and could spring off the ground to the height of at least twelve inches and alight on tip toe and remain poised in that position for a short time. This is a severe test of the strength of the arch of the foot. Many men of the labouring classes have flat feet with strong arches quite free from disease.

Defective Development.—More than one-fifth of all the rejections on inspection are due to defective development. This, however, may merely mean that the recruits fail to reach the comparatively high physical standards of certain corps, and that they refuse to join other corps. In some instances these men are large enough for the corps of their choice, but there are no vacancies. In many cases also lads overstate their age, either from ignorance or from a wish to enlist, and come short of the minimum physical standards. They may, however, be of fair physique for their real age. Under these circumstances hasty opinions should not be formed regarding the degeneracy of the people founded on the ratio of recruits rejected on inspection.

The chest measurement excludes most of the men rejected for lack of development. It is a question whether there should be a rigid standard of chest girth. A barrel-shaped chest contains more lung space than many broad but shallow chests which, measured by the tape, show a larger girth. Healthy men who lead indoor lives and take little exercise compare very unfavourably with labourers as regards chest girth, and yet after some weeks of physical training the former might develop into soldiers of finer physique than the latter.

There is no standard of weight. The recruits rejected under this heading are mainly those who are suspected of being under 18 years of age, or whose constitution has probably been impaired by severe hardships or by chronic disease in a very early stage. As quite 90 per cent. of the recruits are out of work when they enlist, and have in many cases been underfed, it is only natural that their weight should be less than the normal for their size and age. It is extremely difficult to guess the age of lads between 17 and 19. Competent observers are of opinion that more than 5 per cent. of the recruits enlisted at or above 18 years of age are really under 18. These immature soldiers run great risks in training, and during their early service in the tropics.

Tables IV, V, VI, VII, VIII, and IX give the ages, heights, weights, chest measurements, and ranges of expansion of all recruits finally approved for service during the year. In addition, the proportion per 10,000 is given in Table IV for each age, in Table V for each height at each age, in Table VI for each weight at each age, in Table VII for each minimum chest measurement at each age, in Table VIII for each maximum chest measurement at each age, and in Table IX for each range of expansion at each age.

Similar information is given for the period 1896–1905 in Tables IVA, VA, and VIA, and for the period 1904–1905 in Tables VIIA, VIIIA, and IXA.

The highest proportions per 1,000 of recruits finally approved, classified separately for age, height, chest girth, and weight, for 1906, were—

Between 18 and 19 years of age	455·3	per 1,000
„ 5 feet 4 inches and 5 feet 5 inches in height	168·4	„
„ 35 and 36 inches maximum chest girth...	258·5	„
„ 120 and 130 lbs. in weight	307·7	„

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This table merely shows at what age the greatest number of men enlist, and what is the height of most recruits, and so on. The same individuals do not necessarily appear in all the classes.

Similar information for the period 1896–1905 shows the following proportions :—

Between 18 and 19 years of age	417·1	per 1,000
„ 5 feet 5 inches and 5 feet 6 inches in height	178·9	„
35 and 36 inches maximum chest girth... ...	252·9	„
120 and 130 lbs. in weight	307·9	„

The figures for the maximum chest girth are only for the two years 1904–1905.

In comparing the above tables, it is seen that the chief change is that the most common height of recruits was between 5 feet 4 inches and 5 feet 5 inches in 1906, whereas in the previous decade it was between 5 feet 5 inches and 5 feet 6 inches.

The ratios per 1,000 of men over 18 years of age enlisted in 1906 who did little more than fulfil the minimum physical requirements are—

485·2	per 1,000 did not exceed	19 years of age.
163·7	„ „	5 feet 4 inches in height.
109·6	„ „	34 inches in chest girth.
28·1	„ „	7 st. 12 lbs. in weight.

Excluding recruits under 18 years of age, the following general results were obtained from the statistics of age, height, chest girth, and weight of men enlisted in 1906, and also of those enlisted in the decade 1896–1905 :—

	1906.	1896–1905.
Average age of recruits	19·3 years	19·5 years
„ height of recruits	65·6 inches	65·6 inches
„ minimum chest measurement	32·9 „	*31·4 „
„ maximum „	35·1 „	*35·2 „
„ weight of recruits	122·7 lbs.	123·6 lbs.
„ range of chest expansion ...	2·5 inches	*2·5 inches

The highest proportions per 10,000 of finally approved recruits over 18 years of age, classified according to age in relation to height, and again according to age in relation to weight, is given below, for the year 1906 :—

From 18 to 19 years of age and Between 5 feet 4 inches and 5 feet 5 inches in height	2062 per 10,000
From 18 to 19 years of age and Between 110 and 120 lbs. in weight	4088 per 10,000

Similar proportions for the period 1896–1905 were—

From 18 to 19 years of age and Between 5 feet 4 inches and 5 feet 5 inches in height	2150 per 10,000
From 18 to 19 years of age and Between 110 and 120 lbs. in weight	3908 per 10,000

From these figures it is seen that rather more than one-tenth of all recruits enlisted in 1906 were between 18 and 19 years of age, and between 5 feet 4 inches and 5 feet 5 inches in height.

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* For two years only.

United Kingdom.

This is the physique of the typical recruit. The average height of males of the general population between 18 and 19 years of age is 5 feet 7⅛ inches, and their average weight is 138½ lbs.

It is doubtful, however, whether the average height and weight of males of the strata from which recruits are drawn are so good. The figures for the recruits are lowered by many of them being really under 18 years of age or having been insufficiently fed.

In comparing statistics of the decade 1896–1905 with those of other years, allowance must be made for the abnormal years of the South African War.

The recruits passed into the Army in 1906 were, on the whole, very satisfactory. It must, however, be remembered that the great majority were growing lads, and not men.

They should not be expected to do the work of mature soldiers for at least two years.

TABLE I.

FIGURES FOR 1906.

Number of Recruits Inspected.	Number Rejected.			Ratio of Rejections per 1,000 inspected.		
	On Inspection.	Unfit within Three Months of Enlistment.	Total.	On Inspection.	Unfit within Three Months of Enlistment.	Total.
62,371	19,916	661	20,577	319·31	10·60	329·91

TABLE Ia.

FIGURES FOR PERIOD 1896 TO 1905.

Number of Recruits Inspected.	Number Rejected.			Ratio of Rejections per 1,000 inspected.		
	On Inspection.	Unfit within Three Months of Enlistment.	Total.	On Inspection.	Unfit within Three Months of Enlistment.	Total.
704,512	231,515	8,280	239,795	328·62	11·75	340·37

ed dom. The native countries of recruits, the ratios of rejection, and the proportion per 1,000 furnished by each country are given in the following table :—

TABLE II.

FIGURES FOR 1905.

Native Countries of Recruits.	Number Inspected.	Number Rejected.	Ratio Rejected per 1,000 Inspected.	Proportion per 1,000 Recruits furnished by each Country.
England and Wales ..	50,488	16,812	332·99	810
Scotland	5,113	1,728	337·96	82
Ireland	6,262	1,916	305·97	100
British Colonies and Foreign Countries ..	508	121	238·19	8
Total	62,371	20,577	329·92	1,000

TABLE IIA.

FIGURES FOR PERIOD 1896 TO 1905.

Native Countries of Recruits.	Number Inspected.	Number Rejected.	Ratio Rejected per 1,000 Inspected.	Proportion per 1,000 Recruits furnished by each Country.
England and Wales ..	550,737	190,423	345·76	782
Scotland	64,798	20,856	321·86	92
Ireland	81,755	26,446	323·48	116
British Colonies and Foreign Countries ..	7,222	2,070	286·62	10
Total	704,512	239,795	340·37	1,000

The following table gives the number of recruits rejected on inspection during the year according to the different causes of rejection, arranged in classes, and the ratio per 1,000 of rejection in each class, the same information being also given regarding recruits unfit within three months of enlistment :—

TABLE III.

FIGURES FOR 1906.

United Kingdom.

Causes of Rejections in Classes.	Total Inspected, 62,371.			
	Number Rejected on Inspection.	Ratio per 1,000 Rejected on Inspection.	Unfit within Three Months of Enlistment.	Ratio per 1,000 Rejected as Unfit within Three Months of Enlistment.
1. Syphilis	157	2·52	13	·21
2. Tubercle	67	1·07	10	·16
3. Impaired Constitution and Debility	434	6·96	41	·66
4. Other General Diseases	356	5·71	64	1·03
5. Diseases of Nervous System	26	·42	13	·21
6. Weakness of Intellect	91	1·46	54	·87
7. Defective Vision	1,775	28·46	11	·18
8. Diseases of Eyes and Eyelids	194	3·11	15	·24
9. Diseases of Nose and Mouth	130	2·08	2	·03
10. Disease of Ears	229	3·67	48	·77
11. Deafness	130	2·08	11	·18
12. Impediment of Speech	96	1·54	5	·08
13. Disease of Heart	1,917	30·74	108	1·73
14. Disease of Arteries (Aneurysm)	11	·18	—	—
15. Disease of Veins (Varix)	733	11·75	15	·24
16. Disease of Lungs (except Tubercle)	64	1·03	1	·02
17. Loss or Decay of many Teeth	3,719	59·63	68	1·09
18. Hernia	484	7·76	30	·48
19. Laxity of Abdominal Rings	122	1·96	—	—
20. Hæmorrhoids	51	·82	—	—
21. Diseases of the Urinary Organs	40	·64	17	·27
22. Varicocele	797	12·78	7	·11
23. Other Diseases of the Genital Organs (not Syphilitic).	135	2·16	3	·05
24. Defects of Upper Extremities, from Fracture, Contraction, Luxation, &c.	249	3·99	10	·16
25. Defects of Lower Extremities, from Fracture, Contraction, Luxation, &c.	1,333	21·37	43	·69
26. Flat Feet	488	7·82	13	·21
27. Diseases of Joints	178	2·85	17	·27
28. Other Affections of Bones and Muscles.	98	1·57	7	·11
29. Ulcers, Wounds, and Cicatrices	201	3·22	3	·05
30. Other Affections of the Cutaneous System.	306	4·91	6	·10
31. Malformation of Ears	4	·06	—	—
32. Malformation of Nose and Mouth	28	·45	—	—
33. Malformation of Chest and Spine	357	5·72	10	·16
34. Malformation of Urinary or Genital Organs.	61	·98	—	—
35. Under Height	677	10·85	4	·06
36. Under Chest Measurement	3,086	49·48	8	·13
37. Under Weight	703	11·27	1	·02
38. Apparent Age not in accordance with Regulations.	184	2·95	—	—
39. Not likely to become efficient	172	2·76	3	·05
40. Over Height	33	·53	—	—
Total rejected	19,916	319·31	661	10·60

TABLE IIIa.

FIGURES FOR PERIOD 1896 TO 1905.

Causes of Rejections in Classes.	Total Inspected, 704,512.			
	Number Rejected on Inspection.	Ratio per 1,000 Rejected on Inspection.	Unfit within Three Months of Enlistment.	Ratio per 1,000 Rejected as Unfit within Three Months of Enlistment.
1. Syphilis	1,913	2·72	86	·12
2. Tubercle	900	1·28	120	·17
3. Impaired Constitution and Debility	3,179	4·51	427	·61
4. Other General Diseases	3,711	5·27	234	·33
5. Diseases of Nervous System	496	·70	487	·69
6. Weakness of Intellect	897	1·27	631	·90
7. Defective Vision	26,925	38·22	162	·23
8. Diseases of Eyes and Eyelids	1,290	1·83	167	·24
9. Diseases of Nose and Mouth	507	·72	24	·03
10. Disease of Ears	1,199	1·70	242	·34
11. Deafness	1,189	1·69	188	·27
12. Impediment of Speech	897	1·27	46	·07
13. Disease of Heart	12,789	18·15	893	1·27
14. Disease of Arteries (Aneurysm)	108	·15	6	·01
15. Disease of Veins (Varix)	9,665	13·72	306	·43
16. Disease of Lungs (except Tubercle)	951	1·35	73	·10
17. Loss or Decay of many Teeth	28,247	40·09	1,330	1·89
18. Hernia	5,315	7·54	412	·58
19. Laxity of Abdominal Rings	943	1·34	12	·02
20. Hæmorrhoids	597	·85	10	·01
21. Diseases of the Urinary Organs	466	·66	180	·26
22. Varicocele	9,440	13·40	259	·37
23. Other Diseases of the Genital Organs (not Syphilitic).	1,332	1·89	43	·06
24. Defects of Upper Extremities, from Fracture, Contraction, Luxation, &c.	3,408	4·84	180	·26
25. Defects of Lower Extremities, from Fracture, Contraction, Luxation, &c.	11,240	15·95	635	·90
26. Flat Feet	9,758	13·85	436	62
27. Diseases of Joints	1,560	2·21	115	·16
28. Other Affections of Bones and Muscles.	1,266	1·80	131	·19
29. Ulcers, Wounds, and Cicatrices	1,219	1·73	65	·09
30. Other Affections of the Cutaneous System.	2,716	3·86	59	·08
31. Malformation of Ears	51	·07	—	—
32. Malformation of Nose and Mouth	145	·21	9	·01
33. Malformation of Chest and Spine	3,755	5·33	123	·17
34. Malformation of Urinary or Genital Organs.	404	·57	16	·02
35. Under Height	11,987	17·01	15	·02
36. Under Chest Measurement	46,985	66·69	82	·12
37. Under Weight	17,816	25·29	14	·02
38. Apparent Age not in Accordance with Regulations.	3,203	4·55	7	·01
39. Not likely to become efficient	2,665	3·78	55	·08
40. Over Height	381	·54	—	—
Total rejected	231,515	328·62	8,280	11·75

In the following table are shown the ages of all recruits finally approved for service, and the proportion of each age per 10,000 :— *United Kingdom.*

TABLE IV.

FIGURES FOR 1906.

Ages.	Numbers finally approved for Service.	Proportion per 10,000.
Boys under 17 years	2,068	495
From 17 to 18 „	505	121
„ 18 to 19 „	19,031	4,553
„ 19 to 20 „	8,538	2,043
„ 20 to 21 „	4,287	1,026
„ 21 to 22 „	2,479	593
„ 22 to 23 „	1,796	430
„ 23 to 24 „	1,269	303
„ 24 to 25 „	1,190	285
25 years and upwards	631	151
Total	41,794	10,000

TABLE IVA.

FIGURES FOR PERIOD 1896 TO 1905.

Ages.	Numbers finally approved for Service.	Proportion per 10,000.
Boys under 17 years	19,348	416
From 17 to 18 „	6,513	140
„ 18 to 19 „	193,831	4,171
„ 19 to 20 „	90,818	1,954
„ 20 to 21 „	48,211	1,038
„ 21 to 22 „	32,597	702
„ 22 to 23 „	24,029	517
„ 23 to 24 „	17,300	372
„ 24 to 25 „	15,157	326
25 years and upwards	16,913	364
Total	464,717	10,000

United Kingdom.

The next table gives the heights of recruits finally approved, and the proportion of each height per 10,000. It also gives the heights of recruits finally approved, arranged in series according to age, together with the proportion per 10,000 of each height at each age:—

TABLE V.

FIGURES FOR 1906.

Heights of Recruits finally approved for Service.	Boys under 17 years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 years and upwards.	Total at each Height.
ft. in. ft. in.											
Under 5 2 ...	1,404	9	6	5	—	—	1	—	—	1	1,426
5 2 to 5 3 ...	235	58	671	189	60	35	29	10	11	13	1,311
5 3 to 5 4 ...	140	112	3,472	933	403	221	152	92	77	39	5,641
5 4 to 5 5 ...	102	106	3,925	1,386	572	338	237	178	124	71	7,039
5 5 to 5 6 ...	77	81	3,477	1,628	664	366	248	177	192	86	6,996
5 6 to 5 7 ...	61	60	2,808	1,542	777	424	284	222	187	121	6,486
5 7 to 5 8 ...	31	49	2,197	1,285	746	430	308	212	182	89	5,529
5 8 to 5 9 ...	10	20	1,265	718	485	285	247	155	152	100	3,437
5 9 to 5 10 ...	6	5	654	447	293	192	146	124	96	55	2,018
5 10 to 5 11 ...	1	3	304	221	162	95	80	63	85	23	1,037
5 11 to 6 0 ...	—	—	151	116	79	49	39	19	54	19	526
6 0 and upwards	1	2	101	68	46	44	25	17	30	14	348
Total at each age	2,068	505	19,031	8,538	4,287	2,479	1,796	1,269	1,190	631	41,794

Heights of Recruits finally approved for Service.	Proportions per 10,000 at each Age.										Total Proportion of each Height per 10,000.
	Boys under 17 years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
ft. in. ft. in.											
Under 5 2 ...	6,789	178	3	6	—	—	6	—	—	16	341
5 2 to 5 3 ...	1,137	1,149	353	221	140	141	162	79	93	206	314
5 3 to 5 4 ...	677	2,218	1,824	1,093	940	891	846	725	647	618	1,350
5 4 to 5 5 ...	493	2,099	2,062	1,623	1,334	1,363	1,320	1,403	1,042	1,125	1,684
5 5 to 5 6 ...	372	1,604	1,827	1,907	1,549	1,476	1,381	1,395	1,614	1,363	1,674
5 6 to 5 7 ...	295	1,188	1,476	1,806	1,813	1,710	1,581	1,749	1,571	1,917	1,552
5 7 to 5 8 ...	150	970	1,154	1,505	1,740	1,735	1,715	1,671	1,529	1,410	1,323
5 8 to 5 9 ...	48	396	665	841	1,131	1,150	1,375	1,221	1,277	1,585	822
5 9 to 5 10 ...	29	99	344	523	684	775	813	977	807	872	483
5 10 to 5 11 ...	5	59	160	259	378	383	445	496	714	365	248
5 11 to 6 0 ...	—	—	79	136	184	198	217	150	454	301	126
6 0 and upwards ...	5	40	53	80	107	178	139	134	252	222	83
Total ...	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

United Kingdom.

TABLE Va.

Figures for Period 1896 to 1905.

Heights of Recruits finally approved for Service.	Boys under 17 years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 years and upwards.	Total at each Height.
ft. in. ft. in. Under 5 3 ...	15,942	889	8,447	2,736	1,506	850	506	388	282	282	31,984
5 3 to 5 4 ...	1,371	1,476	34,051	11,084	5,216	3,151	2,208	1,416	1,150	1,003	62,230
5 4 to 5 5 ...	814	1,879	41,675	15,971	7,642	4,903	3,234	2,323	2,021	2,149	82,174
5 5 to 5 6 ...	586	1,128	38,264	17,427	8,607	5,636	3,940	2,797	2,308	2,600	83,182
5 6 to 5 7 ...	301	717	27,524	18,026	7,064	5,206	3,920	2,605	2,511	3,163	69,066
5 7 to 5 8 ...	192	453	20,824	12,627	6,847	4,714	3,606	2,396	2,466	2,800	57,201
5 8 to 5 9 ...	80	240	11,796	7,610	5,106	3,406	2,726	2,020	1,879	1,906	36,133
5 9 to 5 10 ...	30	120	6,440	4,470	3,163	2,208	1,024	1,342	1,220	1,323	22,220
5 10 to 5 11 ...	16	60	2,704	2,221	1,574	1,222	960	704	629	756	10,962
5 11 to 6 0 ...	2	19	1,230	1,101	829	500	562	373	390	280	5,408
6 0 and upwards...	5	13	709	613	526	401	337	252	278	242	2,301
Total at each age	19,348	6,513	193,631	90,018	48,211	32,307	24,029	17,380	15,157	14,912	464,717

Proportions per 10,000 at each Age.

Heights of Recruits finally approved for Service.	Boys under 17 years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 years and upwards.	Total Proportion of each Height per 10,000.
ft. in. ft. in. Under 5 3 ...	8,240	1,365	426	303	231	282	245	221	196	142	690
5 2 to 5 4 ...	709	2,266	1,757	1,220	1,092	976	960	918	766	682	1,340
5 4 to 5 5 ...	421	2,117	2,150	1,780	1,596	1,564	1,267	1,246	1,222	1,271	1,764
5 5 to 5 6 ...	303	1,732	1,979	1,919	1,667	1,729	1,640	1,617	1,562	1,606	1,790
5 6 to 5 7 ...	156	1,101	1,420	1,656	1,569	1,637	1,621	1,669	1,667	1,474	1,496
5 7 to 5 8 ...	99	696	1,074	1,290	1,420	1,446	1,402	1,616	1,626	1,606	1,233
5 8 to 5 9 ...	41	368	609	927	1,060	1,078	1,134	1,107	1,206	1,171	792
5 9 to 5 10 ...	20	390	333	492	667	699	730	774	806	766	479
5 10 to 5 11 ...	8	106	130	246	326	375	403	407	415	407	234
5 11 to 6 0 ...	1	2	66	121	172	184	226	214	227	216	114
6 0 and upwards ...	3	21	37	68	111	123	140	146	156	143	73
Total	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

United Kingdom.

The next table shows the weights of the recruits who were finally approved, and the proportion of each weight per 10,000. It also shows the weights of these recruits arranged in series according to age, together with the proportion per 10,000 of each weight at each age :—

TABLE VI.

Figures for 1906.

Weights of Recruits finally approved for Service.	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	Total at each Weight.
Under 100 lbs. ...	1,531	15	5	1	1	—	—	—	—	—	1,553
100—110 lbs. ...	320	90	937	100	31	9	7	5	1	4	1,504
110—120 ,, ...	149	196	7,779	1,935	582	265	141	87	71	36	11,241
120—130 ,, ...	52	136	6,339	3,110	1,386	701	471	302	242	123	12,862
130—140 ,, ...	15	54	2,811	2,142	1,240	750	548	373	363	185	8,481
140—150 ,, ...	—	10	859	899	716	494	380	292	259	154	4,063
150—160 ,, ...	1	4	230	256	242	174	169	129	153	77	1,435
160—170 ,, ...	—	—	60	77	72	73	56	67	62	35	502
Upwards of 170 lbs.	—	—	11	18	17	13	24	14	39	17	153
Total at each age	2,068	505	19,031	8,538	4,287	2,479	1,796	1,269	1,190	631	41,794

Weights of Recruits finally approved for Service.	Proportions per 10,000 at each Age.										Total Proportion of each Weight per 10,000.
	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
Under 100 lbs. ...	7,403	297	3	1	2	—	—	—	—	—	372
100—110 lbs. ..	1,547	1,782	492	117	72	36	39	39	8	63	360
110—120 ,, ...	721	3,881	4,088	2,266	1,358	1,069	785	686	597	571	2,690
120—130 ,, ...	251	2,693	3,331	3,643	3,233	2,828	2,622	2,380	2,034	1,949	3,077
130—140 ,, ...	73	1,070	1,477	2,509	2,892	3,025	3,051	2,939	3,050	2,932	2,029
140—150 ,, ...	—	198	451	1,053	1,670	1,993	2,116	2,301	2,176	2,441	972
150—160 ,, ...	5	79	121	300	565	702	941	1,017	1,286	1,220	343
160—170 ,, ...	—	—	31	90	168	295	312	528	521	555	120
Upwards of 170 lbs.	—	—	6	21	40	52	134	110	328	269	37
Total	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

TABLE VIa.

United Kingdom.

FIGURES FOR PERIOD 1896 TO 1905.

Weights of Recruits finally approved for Service.	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	Total at each Weight.
Under 100 lbs. ...	15,143	218	110	13	9	5	3	3	2	4	15,510
100—110 lbs. ...	2,641	1,189	6,265	961	388	164	99	62	34	88	11,891
110—120 ,, ...	1,062	2,635	75,757	21,488	8,376	4,378	2,672	1,508	1,034	975	119,885
120—130 ,, ...	360	1,566	67,314	31,770	15,487	9,168	6,437	4,377	3,395	3,222	143,096
130—140 ,, ...	116	649	30,971	23,227	13,121	9,461	6,906	4,948	4,364	4,388	98,151
140—150 ,, ...	23	196	10,182	9,335	7,052	5,818	4,583	3,868	3,393	3,888	48,138
150—160 ,, ...	3	33	2,471	3,001	2,703	2,439	2,217	1,766	1,799	2,369	18,801
160—170 ,, ...	—	24	638	850	857	926	868	707	802	1,223	6,895
Upwards of 170 lbs.	—	3	123	173	218	238	244	261	334	756	2,350
Total at each age	19,348	6,513	193,831	90,818	48,211	32,597	24,029	17,300	15,157	16,913	464,717

Weights of Recruits finally approved for Service.	Proportions per 10,000 at each Age.										Total Proportion of each Weight per 10,000.
	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
Under 100 lbs. ...	7,827	335	6	1	2	2	1	2	1	2	334
100—110 lbs. ...	1,365	1,825	323	106	80	50	41	36	23	52	256
110—120 ,, ...	549	4,046	3,908	2,366	1,737	1,343	1,112	871	682	577	2,580
120—130 ,, ...	186	2,404	3,473	3,498	3,212	2,813	2,679	2,530	2,240	1,905	3,079
130—140 ,, ...	60	996	1,598	2,558	2,722	2,902	2,874	2,860	2,879	2,594	2,112
140—150 ,, ...	12	301	525	1,028	1,463	1,785	1,907	2,120	2,239	2,299	1,036
150—160 ,, ...	1	51	128	330	561	748	923	1,021	1,187	1,401	405
160—170 ,, ...	—	37	33	94	178	284	361	409	529	723	148
Upwards of 170 lbs.	—	5	6	19	45	73	102	151	220	447	50
Total	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

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In the next table are shown the minimum chest measurements of recruits finally approved, and the proportion of each measurement per 10,000. The table also shows the minimum chest measurements, arranged in series according to age, together with the proportion per 10,000 of each minimum chest measurement at each age :—

TABLE VII.

FIGURES FOR 1906.

Minimum Chest measurement of Recruits finally approved for Service.	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	Total at each Minimum Chest Measurement.
Under 31 inches ...	1,786	50	529	55	17	2	1	—	—	4	2,444
31—32 inches ...	189	167	4,595	878	297	77	37	22	12	19	6,313
32—33 ,, ...	65	161	6,899	2,517	1,023	424	243	141	112	73	11,658
33—34 ,, ...	20	76	4,192	2,577	1,267	722	510	312	266	139	10,081
34—35 ,, ...	6	22	1,932	1,583	919	636	486	340	332	174	6,430
35—36 ,, ...	2	7	647	646	508	376	292	252	224	114	3,068
36—37 ,, ...	—	2	172	207	190	159	139	124	134	59	1,186
37—38 ,, ...	—	—	55	66	44	65	68	62	69	35	464
Above 38 inches ...	—	—	10	9	22	18	20	16	41	14	150
Total at each age	2,068	505	19,031	8,538	4,287	2,479	1,796	1,269	1,190	631	41,794

Minimum Chest measurement of Recruits finally approved for Service.	Proportions per 10,000 at each Age.										Total proportion of each Minimum Chest Measurement per 10,000.
	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
Under 31 inches ...	8,636	990	278	64	40	8	6	—	—	63	585
31—32 inches ...	914	3,703	2,415	1,028	693	311	206	173	101	301	1,511
32—33 ,, ...	311	3,188	3,625	2,948	2,386	1,710	1,353	1,111	941	1,157	2,789
33—34 ,, ...	97	1,505	2,203	3,018	2,955	2,912	2,839	2,459	2,235	2,203	2,412
34—35 ,, ...	29	436	1,015	1,854	2,144	2,566	2,706	2,679	2,790	2,757	1,538
35—36 ,, ...	10	139	340	757	1,185	1,517	1,626	1,986	1,882	1,807	734
36—37 ,, ...	—	39	90	243	443	641	774	977	1,126	935	284
37—38 ,, ...	—	—	29	77	103	262	379	489	580	555	111
Above 38 inches ...	—	—	5	11	51	73	111	126	345	222	36
Total	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

TABLE VIIa.

United Kingdom.

FIGURES FOR PERIOD 1904 TO 1905.

Minimum Chest measurement of Recruits finally approved for Service.	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	Total at each Minimum Chest Measurement.
Under 31 inches ...	3,670	79	801	90	26	6	4	2	—	6	4,684
31—32 inches ...	426	306	7,584	1,235	334	151	75	29	23	12	10,175
32—33 ,, ...	165	327	12,953	4,258	1,718	751	467	336	273	128	21,376
33—34 ,, ...	62	192	9,540	5,038	2,540	1,551	1,042	745	594	337	21,641
34—35 ,, ..	26	75	4,833	3,497	2,065	1,480	1,148	793	781	462	15,160
35—36 ,, ...	3	31	1,984	1,638	1,096	881	782	622	553	422	8,012
36—37 ,, ...	3	6	604	612	594	477	421	396	422	307	3,842
37—38 ,, ...	1	1	217	254	227	198	209	172	234	233	1,756
Above 38 inches ...	—	—	49	64	84	81	97	92	124	142	733
Total at each age	4,356	1,017	38,565	16,686	8,694	5,576	4,245	3,187	3,004	2,049	87,379

Minimum Chest measurement of Recruits finally approved for Service.	Proportions per 10,000 at each Age.										Total proportion of each Minimum Chest Measurement per 10,000.
	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
Under 31 inches ...	8,425	777	208	54	30	11	9	6	—	29	536
31—32 inches ...	978	3,009	1,966	740	384	271	177	91	76	58	1,164
32—33 ,, ...	379	3,215	3,359	2,552	1,975	1,347	1,100	1,054	909	625	2,446
33—34 ,, ...	142	1,888	2,474	3,019	2,922	2,782	2,455	2,338	1,977	1,645	2,477
34—35 ,, ...	60	737	1,253	2,096	2,375	2,654	2,704	2,488	2,600	2,255	1,735
35—36 ,, ...	7	305	514	982	1,261	1,580	1,842	1,952	1,841	2,060	917
36—37 ,, ...	7	59	157	367	683	855	992	1,242	1,406	1,498	440
37—38 ,, ...	2	10	56	152	273	355	492	540	779	1,137	201
Above38 inches ...	—	—	13	38	97	145	229	289	413	693	84
Total ...	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10, 000	10,000

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In the next table are shown the maximum chest measurements of recruits finally approved, and the proportion of each measurement per 10,000. The table also shows the maximum chest measurements, arranged in series according to age, together with the proportion per 10,000 of each maximum chest measurement at each age :—

TABLE VIII.

Figures for 1906.

Maximum chest measurement of Recruits finally approved for Service.	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	Total at each Maximum Chest Measurement.
Under 31 inches ...	1,142	9	8	—	1	—	—	—	—	—	1,160
31—32 inches ...	363	17	147	23	4	1	—	1	—	1	557
32—33 ,, ...	266	47	341	86	36	9	9	2	2	2	800
33—34 ,, ...	171	131	2,938	408	137	57	36	16	11	21	3,926
34—35 ,, ...	85	168	6,936	1,968	746	295	147	96	67	49	10,497
35—36 ,, ...	32	94	5,006	2,766	1,280	623	407	264	204	131	10,807
36—37 ,, ...	8	30	2,364	1,920	1,046	679	541	307	319	159	7,373
37—38 ,, ...	1	6	973	1,008	658	508	388	333	290	155	4,320
Above 38 inches ...	—	3	318	419	379	307	268	250	297	113	2,354
Total at each age	2,068	505	19,031	8,538	4,287	2,479	1,796	1,269	1,190	631	41,794

Maximum chest measurement of Recruits finally approved for Service.	Proportions per 10,000 at each Age.										Total proportion of each Maximum Chest Measurement per 10,000.
	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
Under 31 inches ...	5,522	178	4	—	2	—	—	—	—	—	278
31—32 inches ...	1,755	337	77	27	9	4	—	8	—	16	133
32—33 ,, ...	1,286	931	179	101	84	36	50	16	17	32	191
33—34 ,, ...	827	2,594	1,544	478	320	230	201	126	92	333	939
34—35 ,, ...	411	3,327	3,645	2,235	1,740	1,190	819	757	563	776	2,512
35—36 ,, ...	155	1,961	2,631	3,239	2,986	2,513	2,266	2,080	1,714	2,076	2,586
36—37 ,, ...	39	594	1,242	2,249	2,440	2,739	3,012	2,419	2,681	2,520	1,764
37—38 ,, ...	5	119	511	1,180	1,535	2,049	2,160	2,624	2,437	2,456	1,034
Above 38 inches ...	—	59	167	491	884	1,239	1,492	1,970	2,496	1,791	563
Total	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

TABLE VIIIA.

United Kingdom.

FIGURES FOR PERIOD 1904 TO 1905.

Maximum chest measurement of Recruits finally approved for Service.	Boys under 17 years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	Total at each Maximum Chest Measurement.
Under 31 inches ...	2,364	10	62	16	1	—	—	—	—	1	2,454
31—32 inches ...	854	30	348	61	11	7	2	1	—	1	1,315
32—33 ,, ...	545	126	785	170	67	25	16	11	1	8	1,754
33—34 ,, ...	330	279	5,642	770	277	122	46	45	23	28	7,562
34—35 ,, ...	177	295	13,304	3,518	1,292	562	321	211	169	114	19,963
35—36 ,, ...	54	179	10,155	5,376	2,478	1,379	937	676	537	326	22,097
36—37 ,, ...	27	64	5,252	3,762	2,209	1,497	1,138	770	713	443	15,875
37—38 ,, ...	5	24	2,314	2,124	1,487	1,200	1,018	786	750	514	10,222
Above 38 inches ...	—	10	703	889	872	784	767	687	811	614	6,137
Total at each age	4,356	1,017	38,585	16,686	8,694	5,576	4,245	3,187	3,004	2,049	87,379

Maximum chest measurement of Recruits finally approved for Service.	Proportions per 10,000 at each Age.										Total proportion of each maximum Chest Measurement per 10,000.
	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
Under 31 inches ...	5,426	98	16	10	1	—	—	—	—	5	281
31—32 inches ...	1,961	295	90	36	13	12	5	3	—	5	150
32—33 ,, ...	1,251	1,239	204	102	77	45	38	35	3	39	201
33—34 ,, ...	758	2,744	1,463	461	319	219	108	141	76	137	865
34—35 ,, ...	406	2,901	3,450	2,108	1,486	1,008	756	662	563	556	2,285
35—36 ,, ...	124	1,760	2,633	3,222	2,850	2,473	2,207	2,121	1,788	1,591	2,529
36—37 ,, ...	62	629	1,362	2,255	2,541	2,685	2,681	2,416	2,373	2,161	1,817
37—38 ,, ...	12	236	600	1,273	1,710	2,152	2,398	2,466	2,497	2,509	1,170
Above 38 inches ...	—	98	182	533	1,003	1,406	1,807	2,156	2,700	2,997	702
Total	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

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gdom.

In the next table are shown the ranges of expansion in chest measurements of recruits finally approved, and the proportion of each measurement per 10,000. The table also shows the ranges of expansion of chest measurement, arranged in series according to age, together with the proportion per 10,000 of each range of expansion in chest measurement at each age :—

TABLE IX.

FIGURES FOR 1906.

Ranges of Expansion in Chest measurement of Recruits finally approved for Service.	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	Total at each Range of Expansion in Chest measurement.
Under 2½ inches ...	941	238	7,018	2,956	1,382	791	560	418	320	220	14,844
2½ inches	625	146	6,178	2,814	1,411	834	596	429	423	175	13,631
3 ,, ...	390	75	3,969	1,851	993	585	398	286	313	148	9,008
Upwards of 3 inches	112	46	1,866	917	501	269	242	136	134	88	4,311
Total at each age	2,068	505	19,031	8,538	4,287	2,479	1,796	1,269	1,190	631	41,794

Ranges of Expansion in Chest measurement of Recruits finally approved for Service.	Proportions per 10,000 at each Age.										Total proportion of each Range of Expansion in Chest Measurement per 10,000.
	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
Under 2½ inches ...	4,550	4,713	3,688	3,462	3,224	3,191	3,118	3,294	2,689	3,487	3,552
2½ inches	3,022	2,891	3,246	3,296	3,291	3,364	3,319	3,380	3,555	2,773	3,261
3 ,, ...	1,886	1,485	2,086	2,168	2,316	2,360	2,216	2,254	2,630	2,345	2,155
Upwards of 3 inches	542	911	980	1,074	1,169	1,085	1,347	1,072	1,126	1,395	1,032
Total	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

TABLE IXA.

United Kingdom.

FIGURES FOR PERIOD 1904 TO 1905.

Ranges of Expansion in Chest measurement of Recruits finally approved for Service.	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	Total at each Range of Expansion in Chest measurement.
Under 2½ inches ...	2,208	585	14,931	5,804	2,902	1,706	1,312	944	943	829	32,164
2½ inches	1,279	279	12,726	5,544	2,906	1,869	1,396	1 090	1,005	633	28,727
3 ,, ...	695	119	7,369	3,668	1,977	1,344	1,058	798	706	382	18,116
Upwards of 3 inches	174	34	3,539	1,670	909	657	479	355	350	205	8,372
Total at each age	4,356	1,017	38,565	16,686	8,694	5,576	4,245	3,187	3,004	2,049	87,379

Ranges of Expansion in Chest measurement of Recruits finally approved for Service.	Proportions per 10,000 at each Age.										Total proportion of each Range of Expansion in Chest measurement per 1,000.
	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
Under 2½ inches ...	5,069	5,752	3,871	3,478	3,338	3,060	3,091	2,962	3,139	4,046	3,681
2½ inches	2,936	2,744	3,300	3,323	3,342	3,352	3,289	3,420	3,346	3,090	3,288
3 ,, ...	1,596	1,170	1,911	2,198	2,274	2,410	2,492	2,504	2,350	1,864	2,073
Upwards of 3 inches	399	334	918	1,001	1,046	1,178	1,128	1,114	1,165	1,000	958
Total	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

PHYSICAL TRAINING OF RECRUITS.

From 1861 to about 1885 the manual of instruction in physical training in the British Army was Archibald Maclaren's "Gymnastic Exercises: a System of Fencing and Club Exercises." Maclaren was Superintendent of the Oxford University Gymnasium. In 1861 Major Hammersly and 12 non-commissioned officers were sent to Oxford for a six months' course of instruction under Maclaren. On the conclusion of the course, Major Hammersly and the non-commissioned officers were posted to Aldershot to form the Staff of the newly erected Headquarter Gymnasium in the South Camp. This may be said to be the beginning of definite physical training in the Army, apart from practice in marching and the handling of weapons.

Several editions of Maclaren's Manual were published, and a number of alterations in the exercises were made.

In 1885 Colonel Fox modified Maclaren's system, and introduced some Swedish and other exercises. Maclaren's methods were principally intended for individual instruction, and the new exercises were devised to a great extent for class work.

In the drill book published in 1896, the system of physical training was brought in which has been in force (amended by minor alterations in the "Infantry Training, 1905," and in "Appendix to Training Manuals, 1905," and by others in 1906) until the end of 1906.

For a great number of years physical training, in the form of running exercises and "extension motions," were given by the drill instructors on the parade ground. This was in addition to and quite separate from the work performed in Gymnasia. In the drill book of 1888 the "extension motions" were superseded by a system of "physical drill with arms" and "physical drill without arms." For some years these exercises were performed to a musical accompaniment. The "physical drill without arms" was omitted from the drill book of 1896.

In April, 1906, the rigid standards for "running" drill and for work on the horizontal and parallel bars, to which all recruits were expected to attain, were abolished. Instructors were, from this date onwards, directed to prevent any man over-exerting himself.

In July, 1906, the Inspector of Gymnasia introduced several other modifications in the exercises, and all tending to make them less severe and more gradually progressive. Work on apparatus, except jumping, was postponed until the recruit had over one month's service, and work on the "bridge" ladder until he had over three months' service. Assistance was also given to men when pulling up to the horizontal bar, "pressing up" on the parallel bars, and "deep breathing" exercises were discontinued.

The physical training of the young soldiers, although improved by these modifications, was still far from satisfactory, and therefore the Army Council determined to change the system. They decided to introduce the Swedish system of physical training into the Army, and for this purpose, towards the end of 1906, they obtained the services of an officer of the Danish Army to teach the new system to classes of Gymnastic Instructors assembled at Aldershot. The Instructors on returning to their stations, in January, 1907, commenced to teach recruits the Swedish Physical Exercises. In January, 1907, physical drill with arms was abolished, and the physical training under the Gymnastic Staff was limited to one hour a day. The "running" drill was continued as before.

The new physical training is for the present only provisional. The War Office appointed a Committee in 1906 to investigate the physiological effects of various physical exercises, and this Committee will finally select those which they consider to be most beneficial for improving the physique of soldiers.

The physical training of soldiers has hitherto too closely followed that made use of in civil life. Apart from copying wrong methods of training, the fact was overlooked that when the recruit enlisted he was very often

in poor condition from underfeeding, and that, unlike a civilian, he had not the stimulus of prizes or competition to tempt him to give up alcohol or tobacco while he was undergoing physical instruction. Moreover, much of the physical training was carried on while the man was clothed in closely fitting uniform, and often before breakfast. The running drill was usually practised under these conditions. The soldier dines in the middle of the day, and has a light tea about 4.30 p.m. This is usually the last meal of the day. He has, therefore, had a long fast when he parades in the morning, and quick or severe work in that condition does more harm than good. The recruit was, as a rule, kept at physical training for two hours a day for five days a week, and very often had running drill as well. Instruction in ordinary military drill was carried on in addition to this. No civilian would think of doing so much continuous hard work when preparing for sports, or for the purpose of preserving his health. *United Kingdom.*

Another most important point is that the food of the recruit is, in the opinion of most medical officers, not sufficient for a growing lad doing hard work. The majority of the men have no superfluous fat, and yet they too often lose weight during their first month's attendance in the gymnasium. This shows that their food cannot supply the energy expended at work, and at the same time provide for the needs of the body.

The combination of poor condition, underfeeding, inappropriate clothing, free use of tobacco and sometimes alcohol as well, throws a strain on the heart of the young soldier even when making physical efforts which would be no tax on the strength of a civilian athlete. The excessive amount of the training adds to the undue fatigue of the heart muscle, and intensifies the other adverse conditions. These unfavourable conditions were peculiar to the physical training of the soldier, but the principles on which the training was based were merely a copy of those generally accepted. These principles were not in accordance with the correct physiological views of the effects of exercise on the human body.

The training was devised to develop a few large muscles by means of which the men could perform acrobatic feats on apparatus or handle heavy dumb-bells or clubs with dexterity. It was believed that recruits could be more quickly converted into strong men by increasing the time passed each day at physical exercises, and by making those exercises more arduous. Great faith was placed in heavy dumb-bells and in pulling the body up to horizontal bars by sheer strength of arm. It was not recognized that a man is only as strong as his heart whatever may be the size of his arm, and that no training is of any value which damages the heart. The muscular efforts made in performing the majority of these exercises invariably stop the respiratory movements of the chest, and thereby prevent the free circulation of the blood through the lungs. The blood is dammed up in the right side of the heart and causes dilatation of the cardiac chambers, and tends to strain the organ. The excessive muscular efforts sometimes cause dilatation of the left chambers of the heart and also functional disorders which, in not a few instances, become permanent. In protracted cases both sides of the heart become affected, and valvular lesions may ensue. These untoward results are, as a rule, only met with in men who are out of condition or of poor physique. In robust men, however, repeated and excessive use of the muscles may, after a time, cause valvular lesions of the heart, especially that variety of it known as "athlete's heart," or aortic incompetency.

The great majority of soldiers of good physique may show no ill effects from this indiscreet training for years. The cardiac muscle hypertrophies in proportion to the work it is called upon to perform and the greatly enlarged heart, for a long time shows no sign of failure. When, however, the physical training is discontinued, the hypertrophied heart muscle degenerates until the surplus muscle tissue is absorbed. The organ never returns to its original size. It is enlarged, but with thinner and weaker walls than it had before it became hypertrophied. The abnormally developed man is, therefore, other things being equal, after a few years, in worse physical state than the untrained man. In cases, however, where training has been carried on under favourable circumstances cardiac hypertrophy may occur without dilatation, and if the hypertrophy be not excessive or unduly prolonged, it is probable that

United Kingdom.

the resolution of the cardiac tissue which follows the adoption of a less active life, may be completed without any ill effects.

It is difficult to prove in any given case that an affection of the heart has been caused by physical training. It is a common belief among medical officers that highly physically trained soldiers do not stand acute diseases or the strain of war so well as the average man. If this opinion is true, the explanation probably is in the thinned and weakened state of the walls of the cardiac chambers. Again, the number of men invalided from the Army on account of disease of the heart, and who have no history of rheumatism or other predisposing disease, is considerable. Few of these men can have enlisted with heart disease. In these days of light sentry duty, well-arranged equipment, and little marching with valises, the purely military duties of a soldier should not produce heart disease in a healthy man.

It is universally recognized that severe and prolonged effort is, in civil life, a cause of all the heart lesions enumerated. The probability, therefore, is that a fair number of these cases among soldiers are also due to muscular effort. A record of the pulse of every recruit taken the day he enlists would throw much light on functional diseases of the heart among soldiers.

Though a small proportion of the recruits are accepted with hearts which beat rapidly and even irregularly on exertion or from nervousness, yet the number of men who become unfit for military duty by reason of disordered action of the heart after some months of service is greater than can be accounted for in this way. The number invalided from the army for this affection depends a great deal on the work the soldiers have to do, and on the views held on this subject by the medical officer who deals with them. Days of light duty and rests in hospital enable many of these men to carry on for the whole period of their army engagement. A campaign or a high standard of physical efficiency would lead to the invaliding of the majority of them.

Whatever part physical training plays in the production of heart disease in the Army, it is evident that a proper system of training should serve some useful purpose, and should not cause any effect which is known, on physiological grounds, to be injurious to any organ of the body.

There is no advantage gained by teaching soldiers to be good acrobats or slow heavy weight lifters, especially when their strength is at its best for only one or two years. Activity, good powers of marching, and endurance are the qualities which should be cultivated, and the men should maintain a high standard of excellence in these all through their service.

There is no rapid method of making a man capable of withstanding prolonged exertion. He must be well fed, and his work must be tempered to his habits. The smoker and the man who indulges in alcohol cannot, other things being equal, get into condition so quickly as the non-smoker and abstainer, and the former class will never attain such a pitch of physical excellence as the latter; therefore, the training should in all cases be very gradual, of a mild character, and to some extent kept up during military service. The whole of the physical training, including "running drill," should invariably be carried on under the supervision of gymnastic instructors. It should never take place before breakfast, and should not be practised for more than one hour on any day. The men should be in shirt sleeves and without braces when at physical training, especially when running.

No recruit should begin physical training until he has one month's service. By this time he will have been well fed and accustomed to his new life. The recruits should be passed from a lower to a higher squad individually.

It is desirable that a medical officer should initial the name of every recruit in the Gymnasium Register of attendance before the man is moved to a more advanced squad. This would ensure that no weakly man was set to work beyond his strength.

The object of all true physical training is not to develop large muscles, but to accustom the heart and lungs to sustained effort. All the muscles of the body, including those of the heart and lungs, should be equally exercised, and in so doing no one muscle can be overworked. The exercises should be changed at frequent intervals, and should very gradually call for increased

effort. The periods of rest should be such that the muscle fatigue completely disappears before work is resumed. The respiratory movements should never be interrupted. No part of the training should be carried to the point of causing distress, and in most cases this will mean that the pulse beats should not exceed 130 per minute. *United Kingdom.*

Practice in walking, running, "free gymnastics," skipping, balancing, jumping, vaulting, and fencing is quite sufficient to teach the heart and lungs to work together without pain or embarrassment, and to maintain the body in good health. These exercises, when carried on under skilled supervision, cannot injure heart or lungs, and they make a man active and capable of enduring hardships. It is harmful and quite unnecessary to try to expand the lungs by exercises on the horizontal bar. A short run will expand them better than any artificial method. The only instruction in breathing that is necessary is to tell men to breathe through the nose as much as possible, and not through the mouth. Singing is, of course, one of the very best exercises for the lungs.

Soldiers have to be taught how to scale obstacles and climb, but these exercises should be viewed as purely military instruction, and should not be repeated in order to improve physique. The gymnastic staff, however, should have the entire superintendence of the climbing and scaling practices, and the work should be included in the time devoted to physical training.

A soldier must be prepared to occasionally make greater physical efforts in performing some military duty than should ever be demanded from him during instruction in physical training. The position of attention is most injurious to the health of the soldier, and far too much of his time is passed in that attitude. The movements of respiration are seriously checked in the effort to keep the chest expanded. After a time the chest walls become more or less fixed in a position of expansion, and the range of expansion is permanently diminished. This state of matters greatly reduces the efficiency of the lungs, and thereby of the aeration of the blood, and is therefore a cause of disease, and of lessened resistance to disease. A factor in causing heart strain in soldiers is the excessive "smartness" of the drill in certain regiments. Men are taught to move so promptly at the word of command that they anticipate orders with strained attention. This is harmful, and probably quite unnecessary.

Men doing hard work require an abundant supply of fresh air. Physical training, therefore, should be carried on as much as possible in the open air. Gymnasia should have the utmost ventilation that can be provided, and should be artificially warmed in winter.

The mind of the recruit should be developed as well as his body. Many of the physical exercises can be arranged so that the men become interested in the work.

II.—INVALIDING.

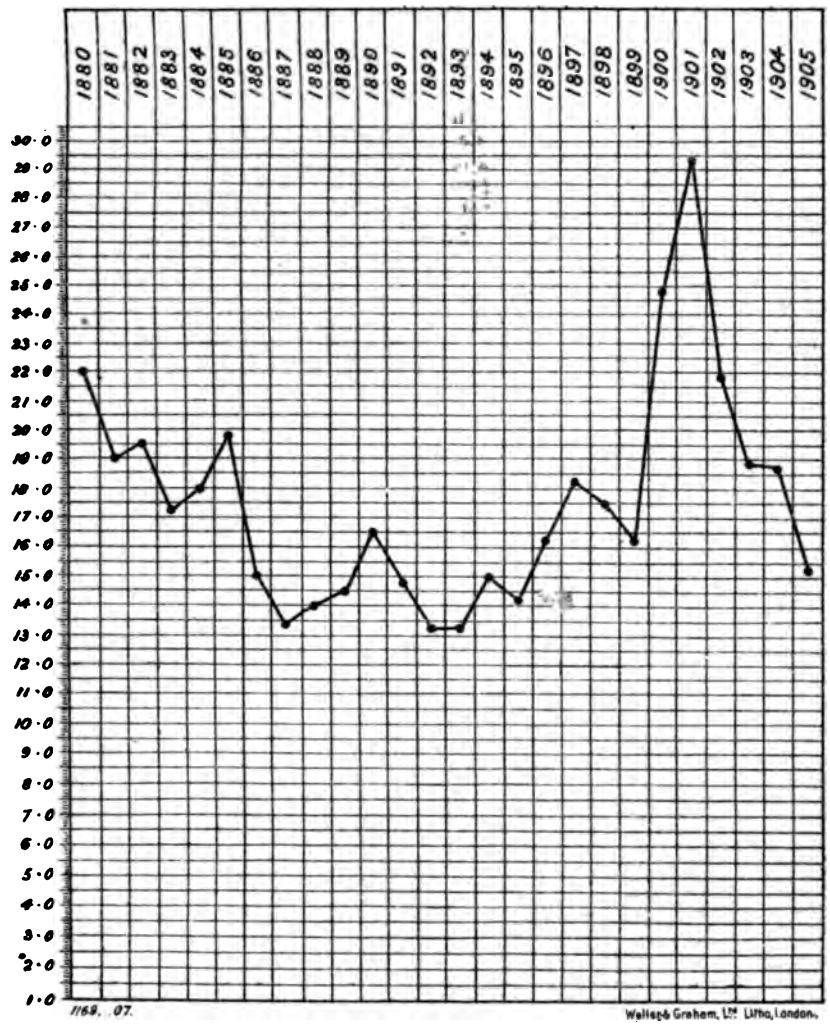
Invaliding is a form of waste which, as far as statistics go, is confined to the Army alone. In civil occupations a man who breaks down at his work merely swells the ranks of the unemployed, and his place is taken by another. No record of the numbers so incapacitated by various ailments is kept by the great employers of labour, or by the Board of Trade, and therefore in this respect it is impossible to compare the effects of military life with those of civil life. Invaliding has, of course, an important effect on the death rate of the Army. Men suffering from incurable disease leave the Army as invalids, and if they die, their deaths are recorded in the deaths of the civil population. It is difficult to say precisely what the reduction of the military death rate so effected is. Much must depend on the actual circumstances of each case. Thus, for instance, a man invalided in the first year of his service for aneurism due to a sudden strain, and dying a year later from this cause, should, for accurate statistical purposes, be recorded as a military death. On the other hand, a man contracting phthisis in the last year of his colour service, and dying as an invalid three years later, cannot be fairly so counted, since at the time of his death he would, in any case, have been rated as a civilian, and the disease cannot be necessarily said to be due to military service.

In invaliding, therefore, we have a peculiar and rather uncertain factor which merits serious consideration.

A chart is attached giving a curve showing the variations in invaliding since the year 1880. It will be seen that from that date till 1892 there was a fairly steady fall in the invaliding rate from all causes, and that from that year there was a steady rise, culminating in the heavy rate of 1901 (over 29 per 1,000 of strength), due in its intensity to the hardships of the South African War. But though this war may account for the high rates of the years during which it lasted, it cannot explain the increase which marked the years 1892 to 1897. Since the war there has been a fall, and in the present year under consideration the rate is 11·93 per 1,000. In chart No. 2 curves are given showing the variation in Invaliding affecting the six chief causes of this form of waste. It will be seen from this that, dating from the year 1880, there was a steady fall in the numbers of men invalided for Tubercular Disease, Diseases of the Circulatory System, Digestive System, and Rheumatism. The fall in tubercular diseases is the most marked of the four. During this period the only cause which showed a tendency to increase was syphilis. The fall in the total invaliding rate during the earlier years of the quarter of a century under consideration was due, therefore, to a fall in all the chief factors which affect this rate with the solitary exception of syphilis. It will be seen, too, that the subsequent rise in invaliding in the years anterior to the war was due almost entirely to a continuance in the increase of venereal disease. There was, it is true, a slight upward tendency in circulatory disease as well, but as a whole the chief causes of invaliding showed a tendency to remain fairly steady during the years between 1892 and the outbreak of the war. That event caused an immediate and great increase in all causes with the exception of syphilis. This had, indeed, begun to decrease in the years before the war, since the invaliding rate for 1899 can hardly have been affected by that event, but the war itself helped largely to keep it to the low level, which, with the exception of 1902, when the return of the troops from service probably led to a slight outbreak of excess, it has since retained. This diminution must be in a large measure attributed to the increased popularity of the Temperance movement in late years. At present the highest place in the invaliding list is held, as it, indeed, always has been, by diseases of the *circulatory system*. The diseases which cause invaliding under this head are chiefly valvular disease of the heart and disordered action of the heart. In the days of the long service Army, previous to the period with which we are now concerned, *aneurism* was an important cause of invaliding, but with the younger soldier of the present day this disease is almost unknown, except as the result of strain or injury. Valvular disease of the heart

CHART I. SHOWING THE INVALIDING DUE TO ALL CAUSES, FROM THE ARMY DURING THE 26 YEARS, 1880-1905.

RATIO PER 1,000 OF STRENGTH.



INVALIDING WHOLE ARMY SHOWN THUS ———

accounted for 354 invalids during the year under consideration. It is a question that needs very careful consideration in how far the mere presence of a murmur over the seat of a valve is sufficient proof that a man suffers from disease of the heart to such an extent as to necessitate his being discharged from the Army as unfit. This question is one which can only be solved by a very careful consideration of the subsequent history of a large number of cases invalided under this head, and it is hoped that this may shortly be taken in hand. The question bristles with difficulties. It is obvious that a medical officer will always be loth to retain in the service a man who presents one of the signs of a possibly fatal disease. On the other hand, the mere fact that he presents only one sign should make us pause before deciding to throw away a trained and useful man. As already stated, the matter demands further investigation before we can definitely lay down rules for estimating the gravity of any particular case. Disordered action of the heart is a fruitful source of invaliding among the younger soldiers. There is a fairly general consensus of opinion that this disability is due partly to a defective and too hurriedly forced system of physical training of immature and often ill-fed lads, and partly to the obnoxious habit of smoking, not tobacco, but cheap cigarettes, into the composition of which that vegetable enters but slightly. As regards the former cause, changes have already been introduced in the system of training which it is hoped will do away with most of the evils incidental to the old system. It is, of course, too soon to say definitely what the precise effect of these changes will be, but the general opinion of instructors and medical officers who have watched the new system in practice is that it throws far less strain on the circulation and respiration of the recruit than the older exercises. As regards the latter evil, it is difficult to say what can be done. It would be difficult to prohibit the smoking of cigarettes by young soldiers, because it would be practically impossible to enforce the rule out of barracks. Still it is a fact that the recruit during his training does what no other man under training does, that is smokes and drinks, though the latter to a much less extent than formerly. Diseases of the *digestive system* hold a considerably higher place in the list than used to be the case. In 1880 they ranked as fourth out of six chief causes; now they rank as second. The first marked rise in this cause of invaliding coincided with the outbreak of the war, and though the years 1902 and 1903 showed a slight decrease, the fall has been less marked than in any other cause of invaliding. This increase is to be attributed entirely to the greater attention paid to the condition of the soldier's teeth. During the South African War a great number of men were found to be unable to consume the hard biscuit of the Field Service ration owing to lack of efficient teeth. Since then Medical Officers have been in the habit of paying more attention to this point, but it is a question whether the pendulum has not swung rather too far in the direction of increased stringency. Diseases of the *nervous system* hold the third place in the list. Here again the war caused a great increase in invaliding. The subsequent fall has been steady, and the present position is much what it was before the war. The most gratifying feature of the question of invaliding is the fall in tubercular diseases. This is undoubtedly due to the improved housing of the soldier that is afforded by the more modern type of barracks. It is noteworthy that the war caused but a slight rise in these diseases. Its effect seems, in fact, to have been hardly more than accidental. In conclusion the chief problems connected with invaliding that demand attention of the Medical Department in the future are :—

1. The importance to be attached to the existence of a cardiac murmur as rendering a man unfit for military service;
2. The effect of training and smoking on the young soldier's heart; and
3. The standard of dental efficiency which should be held as sufficient for a man to be considered efficient for general service.

III.—AGE AND SERVICE IN RELATION TO THE PREVALENCE OF ENTERIC FEVER.

Youth and recent arrival in an area of considerable prevalence of enteric fever have long been recognized as two important factors in determining the degree of incidence among the population. The effect is most easily seen in our Army statistics, as they alone form a complete record of attacks in relation to the population affected. But the age influence was, of course, observed in the civil population from the time when enteric fever was first differentiated, and the age incidence, indeed, was one of the criteria in the distinction between Typhus and Enteric Fever.*

Some years elapsed after the recognition of Enteric Fever as a distinct disease in Europe before it was recognized in India, where the first cases were described in 1856. For some years afterwards, though the occurrence of a few cases was allowed, its prevalence was denied. In the Report of the Sanitary Commissioner with the Government of India for 1868, it is said that "the liability of the British soldier in India to this affection has not hitherto attracted the attention which it deserves," and, indeed, for ten years afterwards, the same criticism was applicable.

It was in this same report for 1868 that the influence of youth and recent arrival (due to the observations of Dr. Bryden) appear to have been first insisted on. It is, of course, obvious that recognition of some prevalence of the disease was a necessary preliminary to any such observations.

It is only comparatively recently (since 1897) that we have had in the Army Medical Department Reports a statement of the distribution by age and period of service in India of the whole of the cases of enteric fever occurring there. Before that we had partial records only. Unfortunately, these statements leave something to be desired; they only give the number of cases in each age or service group separately, whereas what is required is a table showing the age and service in India of each individual case of enteric fever. Such a table is now in course of preparation, but it will be a few years before the consolidated results can be accepted as truly representative.

At present we have two isolated groups of figures† which cannot be directly correlated, and we cannot ascertain *directly* from them which is the dominant influence, age or service in India.

We know that the majority of soldiers land in India as young adults, and that their age and service increase together. We know also that under the short service system, most of the men during their whole service in India can only be shown in two age groups (usually 20 to 25 and 25 to 30). The tables in the Army Medical Department Reports allow us to give a numerical expression to this. Taking the mean distribution, according to age and service in India, of the Army in India between 1897–1905 inclusive, we find that 87 per cent. were under 30 years of age, and 76 per cent. had less than five years' service in India. That is, about 11 per cent. were under 30 years of age, but had more than five years' service.

We know from the age limits for recruits that on the one hand few men of 30 can have more than ten years' service in India (soldiers "under 20" represent only 3 per cent. of the total strength), and on the other that the number of men aged 30 with less than five years' service in India must be comparatively small.

These same tables also allow us to calculate the mean age and service of the soldier in India, and for the nine years 1897–1905 the *mean soldier* was aged 25·69 years, and had 3·76 years' service in India. Owing to the inclusion of the three years of the South African War, these means are probably somewhat higher than usual, as will be seen later.

This close relationship between age and service makes it all the more difficult to distinguish between their effects. But the broad facts of the case can be easily stated under each head, age and service.

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* Murchison, "Treatise on Continued Fever," 1862.

† Tables I and II, pp. 32 and 35.

TABLE "A."

Enteric Fever in Relation to Age.

India, 1897–1905.

Mean incidence over period = 21·24 per 1,000 of Strength.

Average incidence over period = 21·2 ± 1·659.

Variability = 34·78 ± 6·16 per cent.

Age Group.	Proportion per 1,000.		Relative Liability.	Relative Incidence per 1,000 of Strength.		
	All Soldiers.	All Cases of Enteric.		Mean over Period.	Average.	Variability.
	(1)	(2)	(3)	(4)	(5)	(6)
						Per cent.
Under 20	31·2	27·6	0·8872	18·85	18·82 ± 1·488	35·17 ± 6·25
20 to 25 ..	468·3	705·2	1·5056	31·98	31·3 ± 2·315	32·86 ± 5·76
25 to 30 ..	372·3	234·7	0·6303	13·39	13·5 ± 0·899	29·48 ± 5·12
30 to 35 ..	95·4	27·7	0·2912	6·19	6·31 ± 0·26	18·47 ± 3·04
35 to 40 ..	26·2	4·1	0·1620	3·44	3·43 ± 0·21	27·15 ± 4·63
40 and over	6·6	0·7	0·1217	2·59	2·6 ± 0·56	92·04 ± 24·0

I.—Table showing Admissions. Enteric Fever by Ages in India.

Year.	Under 20 years.		From 20 to 25 years.		From 25 to 30 years.		From 30 to 35 years.		From 35 to 40 years.		From 40 and upwards.		Totals.	
	Strength.	Admissions.	Strength.	Admissions.	Strength.	Admissions.	Strength.	Admissions.	Strength.	Admissions.	Strength.	Admissions.	Strength.	Admissions.
1897	1,968	65	32,589	1,446	21,633	425	4,326	33	1,321	4	409	-	62,237	1,973
1898	2,147	53	31,796	1,696	22,035	489	4,688	42	1,414	6	409	—	62,489	2,286
1899	1,973	37	32,947	1,031	24,658	284	4,664	27	1,509	3	464	—	66,215	1,382
1900	1,370	26	25,689	594	25,235	304	5,490	33	1,500	7	511	1	59,785	965
1901	1,578	20	23,010	427	26,581	285	6,422	35	1,694	3	444	1	59,729	771
1902	1,778	19	23,689	664	24,941	274	6,630	33	1,719	7	382	2	59,139	999
1903	2,207	49	33,039	986	23,682	270	7,193	41	1,949	7	418	1	68,488	1,363
1904	2,573	38	33,368	1,003	23,188	284	7,848	49	2,036	8	443	2	69,456	1 334
1905	2,446	33	34,243	800	23,079	255	7,876	48	1,967	7	397	3	70,008	1,146
Totals ..	18,040	340	270,370	8,647	215,032	2,879	55,127	341	15,109	52	3,868	10	577,546	12,269
Mean Incidence ..	18·85	—	31·98	—	13·39	—	6·19	—	3·44	—	2·59	—	21 24	—

The "age groups" include five yearly periods between 20 and 40. Below 20 and over 40 their extension is less definite, but the centre of these periods has been assumed to be 17½ years and 42½ years. The first column of the table shows the proportion per 1,000 of the total strength of the Army in India between 1897 and 1905 included in each age group. The second column gives similar particulars of the total cases of Enteric Fever admitted to hospital during the same period, and drawn from the population distributed as in column 1.

The third column, headed "Relative Reliability," is obtained as follows :—

Supposing that age was entirely without relation (directly or indirectly) to the liability to enteric fever, the proportions of the cases in each age group would (in such a long series) be sensibly the same as the proportions of the total strength in the same age groups ; that is the quotient obtained by dividing the ratios in column 2 by those in column 1 would be either unity, or would closely approximate to it. But it will be seen that the quotient actually obtained in no case approaches unity, that is that age has, directly or indirectly, some influence on reliability.

The total strength in column 1 and the number of cases in column 2 being in each case 1.000, the quotients in column 3 do not, of course, represent the actual incidence in each age group, but only express the relative liability of the various age groups. In this way, being divorced from the actual prevalence, they allow of a direct comparison with liabilities obtained in the areas where the mean incidence is different. The relative liability and the actual incidence should always be carefully distinguished.

Column 4 shows the mean incidence calculated on the total strength and total cases over the period. Column 3 may be obtained from it by dividing each value by the mean incidence, viz., 21·24 per cent.

Column 5 shows the average of the annual incidences in the nine years comprising the period ; it introduces the element of variability from year to year, and consequently differs slightly from column 4 ; here also the probable error of the average is shown.

Column 6 gives numerical expression to the annual variations. We can ascertain the amount of the annual variation about the average, and expressing its relation to the average as a percentage we get the coefficient of variability shown in column 6.

Several points may be noted :—

1. The enormous increase (tenfold) in the proportion of young adult males in the Army as compared with the civil population. In England and Wales (Census of 1891) 43 per 1,000 males were between 20 and 25, that is less than one-tenth of the proportion in the same age group in the Army in India. In Maritzburg between 1891–1898 the difference was still greater.
2. One often hears it said that the soldier is sent to India "at the most susceptible age." That (20 to 25) is, of course, the case having regard to the age limits for enlistment, but it is not actually the period of greatest incidence among the general population, where the incidence increases to between 15–20 years of age, and then declines. So that the soldier has passed through the period of greatest liability in England before enlisting.
3. Column 3 shows that although in the general population at home the incidence between 20 to 25 is less than that in the previous age group, in India the incidence is nearly twice as great in the group 20 to 25 as it is in the previous group, and more than twice as great as that in the following group—that, in fact, between 20 and 35 the liability is more than halved in each successive age group.

   The smaller liability in the youngest age group is curious. Three elements may be considered in explanation of this fact :—

   (*a*) The group "under 20" really includes a shorter period of exposure to infection than any other group ; the numbers towards the lower limit of this group are small, so that the mean period of exposure is less than five years. This is probably the important element.

(*b*) Some small proportion in this group enlist in India, having been born and brought up there.

(*c*) Many are band boys, drummers, and the like, and are more under supervision and less in the bazars than older men.

4. Reference to column 6 will show that the variability in incidence is essentially the same up to the age of 30, and, indeed, does not differ significantly from the variability of the mean incidence at all ages. Now this period corresponds fairly with the limits of age within which men usually go to India, and this constant variability is probably, therefore, largely dependent on the factor of recent arrival. The incidence between 30 and 35 is distinctly more constant than at any other period, probably also dependent on service in India, as the majority of men here must have been a few years in India.

TABLE "B."

Enteric Fever in Relation to Service in India.

India, 1897–1905.

Mean incidence over period = 21·24 per 1,000 of Strength.

Average incidence over period = 21·2 ± 1·659.

Variability = 34·78 ± 6·16 per cent.

Service Group.	Proportion per 1,000.		Relative Liability.	Relative Incidence per 1,000 of Strength.		
	All Soldiers. (1)	All Cases of Enteric. (2)	(3)	Mean over Period. (4)	Average. (5)	Variability. (6)
						Per cent.
Under 1 ..	174·0	398·6	2·290	48·65	48·49 ± 4·43	40·64 ± 7·45
1 to 2 ..	165·2	218·9	1·325	28·16	27·28 ± 1·77	28·93 ± 4·97
2 to 3 ..	163·5	130·6	0·7988	16·97	16·53 ± 1·41	38·03 ± 6·71
3 to 4 ..	140·4	89·4	0·6370	13·53	13·19 ± 1·12	37·82 ± 6·79
4 to 5 ..	121·5	64·4	0·5297	11·25	10·97 ± 1·16	47·08 ± 8·98
5 to 10 ..	193·0	92·6	0·4801	10·20	10·42 ± 0·47	20·68 ± 3·45
10 and over	42·4	5·5	0·1289	2·74	2·48 ± 0·34	60·18 ± 12·53

Year.	Under 1 year.		1 to 2 years.		2 to 3 years.		3 to 4 years.		4 to 5 years.		5 to 10 years.		10 years and upwards.		Totals.	
	Strength.	Admissions.	Strength.	Admissions.	Strength.	Admissions.	Strength.	Admissions.	Strength.	Admissions.	Strength.	Admissions.	Strength.	Admissions.	Strength.	Admissions.
1897..	11,459	817	11,366	457	11,122	263	9,890	192	7,988	148	8,727	93	1,775	3	62,227	1,973
1898..	11,551	1,057	11,215	426	11,066	294	9,558	221	7,760	160	9,408	126	1,931	2	62,489	2,286
1899..	12,028	621	12,191	369	10,735	124	9,481	101	8,157	67	11,397	100	2,226	—	66,215	1,382
1900..	2,892	88	9,679	274	10,360	212	9,486	112	8,830	107	15,851	165	2,686	7	59,784	965
1901..	4,201	159	4,599	59	9,854	178	10,255	122	8,708	89	19,356	160	2,756	4	59,729	771
1902..	8,864	447	5,793	148	6,885	41	9,597	131	8,822	80	15,746	140	3,432	12	59,139	999
1903..	19,061	738	10,616	265	8,298	87	6,576	35	8,246	80	12,279	141	3,412	17	68,488	1,363
1904..	13,161	493	17,056	421	10,640	198	8,614	82	6,222	33	10,430	147	3,333	10	69,456	1,384
1905..	17,287	470	12,887	267	15,452	205	7,614	101	5,570	26	8,284	65	2,914	12	70,008	1,146
Totals ..	100,504	4,890	95,402	2,686	94,412	1,602	81,071	1,097	70,203	790	111,478	1,137	24,465	67	577,535	12,269
Mean	48·65	—	28·16	—	16·97	—	13·53	—	11·25	—	10·20	—	2·74	—	21·24	—

The construction of Table "B" is the same as in Table "A." Here we are of course, working with very much smaller units—one yearly intervals up to five years' service. Column 1 then gives us not only a measure of the actual distribution of the population—which is seen to be closer than in the distribution by age—but of the wastage. Taking the successive differences between the ratios up to five years, we find that the greatest wastage from all causes (death, invaliding, discharge, desertion) is in the third year of service (23 per cent.), next in the fourth (19 per cent.), while in the first it is 9 per cent., and least of all during the second year (2 per cent.). Now if the smaller unit of measures must be remembered, the differences in the relative liabilities shown in column 3 become still more striking than those in the same column in Table "A." For more convenient reference these liabilities are shown diagrammatically in figure 2, when the rapid fall during the first two years is obvious, and equally apparent is the fact that the decrease in liability from year to year becomes less and less as the service increases—that, in fact, one cannot expect, after any period of service, however prolonged, to find complete freedom from attack. For purposes of comparison the liabilities by age are also shown in figure 1—and the same falling off in the decrease from year to year is also seen—that here, too, increasing age will afford us no complete protection from attack.

Turning to column 6—Variability—there are two points to note :—

(*a*) The incidence in the second year of service in India is very much more constant than in any other group up to five years' service. That is, the incidence in the second year of service is the foundation of the annual prevalence, although the strength is not greatest in this group. The reason of this relative constancy in the second year appears to be that, while owing to variations in time of arrival and in the seasonal prevalence of Enteric, a man may escape exposure to infection during his first season, he cannot escape during the second year.

(*b*) Between five and ten years' service the incidence is again remarkably constant. The comparison with the age group 30 to 35 (also of little variability) is tempting, but they are not directly comparable, as about twice as many men had 5 to 10 years' service as were between 30 to 35 years of age.

If we could accept this series of nine years (1897–1905) as giving a fair sample of the distribution by periods of service in India, of the British Army there, we should get by adding up the separate rates of incidence in each year of service, an estimate of extent to which the soldier is liable to recorded attacks of Enteric Fever during his whole service in India—supposing it to be always prolonged to "ten years or over." This is possible because service in India, having a definite beginning, the number say in the service group "2 to 3" in any one year, will be composed of those who were in the service group "1 to 2" in the previous year, less any wastage. Then in a sufficiently long series of years, where the distribution according to service was normal, the total of the mean incidence in each year of service would express the total mean incidence in a number of groups of men—the number of groups being equal to the number of years included.

Now here we have but nine years, too short a series, and we know that owing to the inclusion of the South African war period, the service distribution was not normal. Hence the result is not accurate, but it may be put forward as an approximation. Now the total of the mean incidences in column 4 is 131·5 per 1,000, say, 13 per cent. of men are attacked, 87 per cent. escape.

The distribution of cases by years of service is all that can usually be done. But it conceals an important fact, which is the relation between the time of arrival—the seasonal prevalence of the disease—and the date of attack. In India, there are considerable differences in the seasonal prevalence of the disease in different areas, and in the time of arrival. The trooping season is prolonged over some six months, so that we are getting only average results in this table.

ENTERIC FEVER.

FIG. 2.

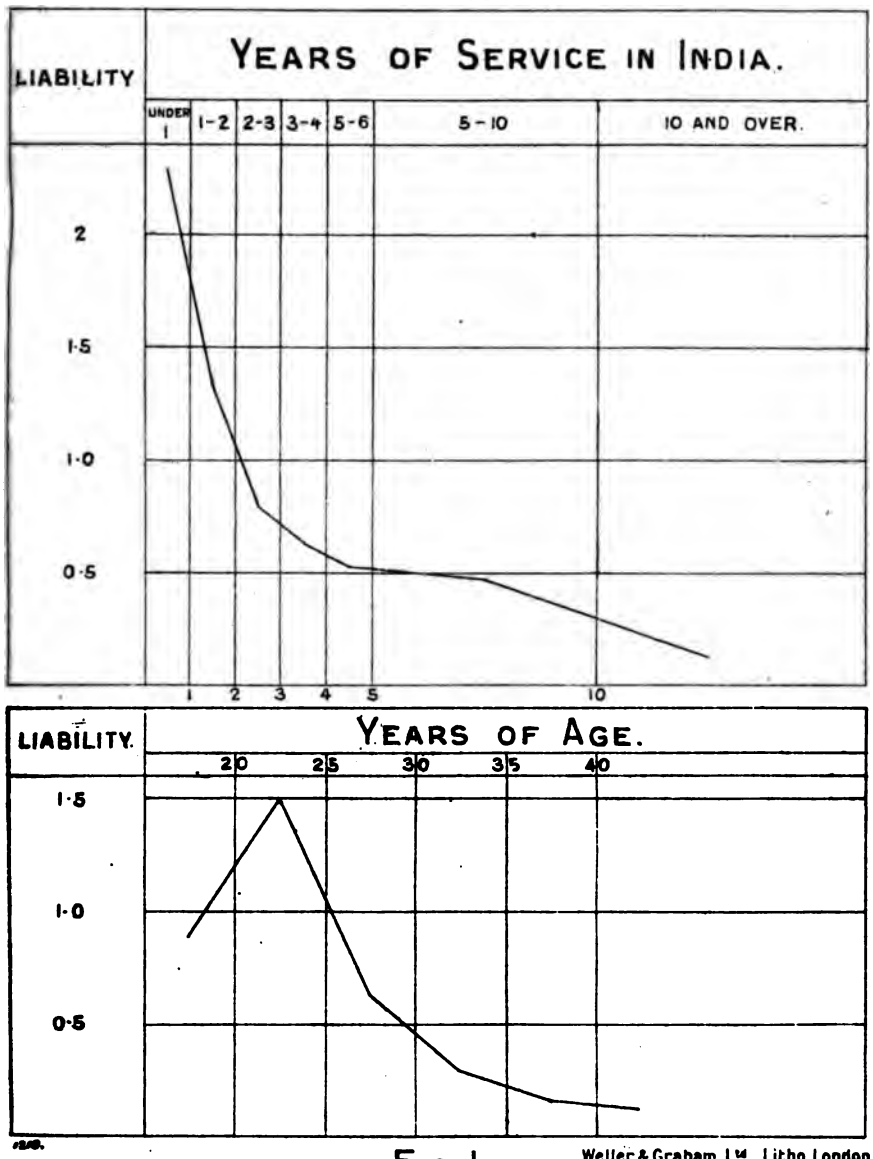

FIG. 1.

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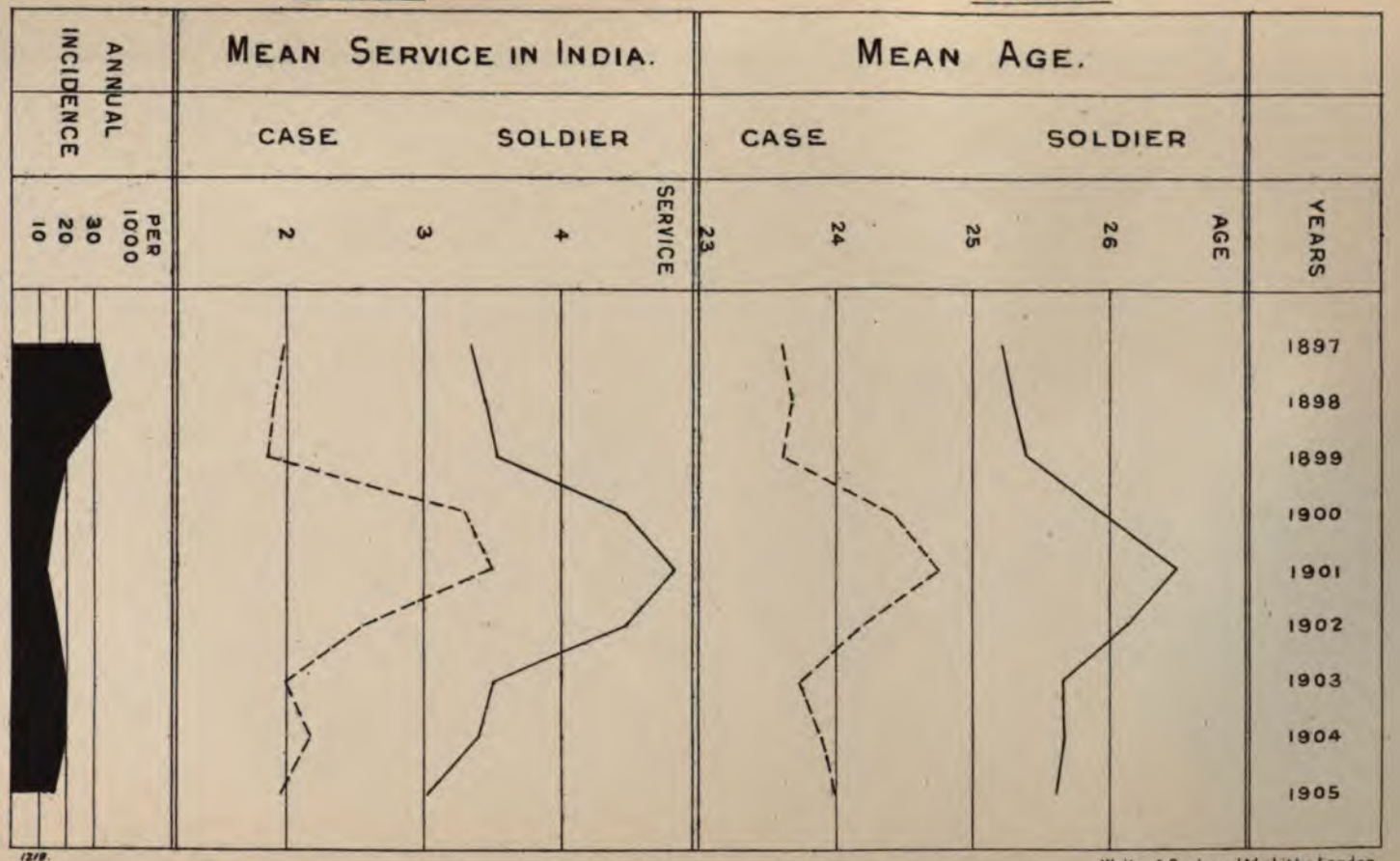
FIG. 3.

FIG. 4.



1218.

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In Maritzburg, where the seasonable prevalence is well marked, it was possible to arrange 210 cases, irrespective of age, according to the dates of arrival and attack. Now of these, 61 per cent. were attacked in the first enteric season after arrival, 19 per cent. in the second enteric season, and the remaining 20 per cent. at later periods. In India, between 1897–1905, 62 per cent. were attacked within two years after arrival, 22 per cent. between 2 to 4 years, which, allowing for the wide variation in dates of arrival, is comparable with the results from Maritzburg. That is, nearly two-thirds of the cases contracted the disease at the earliest opportunity. Bryden's figures dealing with the arrivals in India in the cold season 1871–75 as against a similar number arriving at the beginning of the hot season 1872–76 lead to the same conclusion, that most of the cases are infected as soon as possible. Bryden's figures were put forward as showing that the time of arrival—in the hot weather or in the cold weather—had but little influence on the total incidence over the first two years, which is only another way of stating the conclusion arrived at above.

It is of some interest to compare the mean age and mean service of the soldier in India during the period, and of the case of enteric fever.

The mean age of the soldier was	25·69	years.
„ of the case was	23·89	„
„ service of the soldier was ...	3·76	„
„ of the case was	2·22	„

Here the variations are more interesting than the actual mean; they are shown diagrammatically in figures 3 and 4. One sees that there is a very steady relationship between the mean age and service of the soldier and of the case, that in fact, all four elements are related, and all rose during the war period.

The mean annual incidence at all ages and periods of service is also introduced for comparison. Generally speaking, the mean incidence is inversely as the mean age or service, but the correspondence is not very close, and, indeed, the mode of comparison is not satisfactory; a direct comparison with the number of young soldiers is probably more profitable. But this particular question of mean incidence from year to year is exceedingly complicated and requires much more investigation; other factors (besides age and service) intervene, whose influence it is difficult to estimate as yet.

The correspondence in the rise in all four elements, age and service of the soldier and of the case, emphasizes the fact that a considerable prevalence actually occurs among the older groups and those of longer service, a prevalence normally obscured by the excess in the younger men.

Annual variations in age and service groups may be compared more directly with the annual variations in the total incidence. Here we take the scattering round the mean, and from it obtaining the probable error, use this as a measure of the annual variations. This process enables us to eliminate all non-significant variations, that is, all those which are less than at least twice the probable error, a moderate estimate.

The results are shown diagrammatically in figure 5.* The centre column shows the variations in the total incidence from year to year, and we see from it, that only in 1897 and 1898 did the total incidence depart from what we might expect from such a series, and that in both years the departure was in excess. The remainder of the period showed only a normal variation.

The left side of the figure shows variations in age incidence, the right side, variations in incidence according to service. We see at a glance that the age distribution is more constant than that by service. Other points to note are:—

(1) In 1898, the year of greatest deviation in total incidence, the increased prevalence was found at all ages between 20 and 35, and up to 10 years' service, except in the steady group—the second year.

*The black areas show variations greater than twice the probable error. Variations greater than the probable error, but less than twice, are out-lined only. These are hardly significant.

(2) In 1897, with a considerable deviation in the total incidence, there was not the same general increase in the age groups, it was greatest in the youngest age group, the group 20 to 25 was normal, while the service group 1 to 2 was strongly affected.

Both these years show what has been observed elsewhere, that at times of exceptional general prevalence, the older men of longer service suffer, and diverge from the mean as much, if not more, than the younger groups.

In seven out of the nine years, the age distribution up to the age of 35 was within normal limits. The last two groups contain so few cases that they are not satisfactory.

As regards the service side, one might almost say the same, but for one remarkable series of deficiencies in the men whose service in India began in 1900. In 1900, when they had less than 1 year's service, their deficiency from the mean was within normal limits, but in each succeeding year to 1903 they have shown a significant variation from the normal. It has not been possible so far to ascertain the reason of this phenomenon, but it may be associated with the abnormal conditions prevailing with regard to drafts during the War period.

The Influence of Age and Service on the Death Rate.

So far one has considered only the effect on the occurrence of enteric fever This is by far the larger question, affecting as it does the efficiency of the Army, not only through the actual attacks, but through their sequelæ. The ratios of deaths to attack at the various periods of age and service are shown in the following table :—

CASE MORTALITY BY AGE AND SERVICE.

1897 - 1905.

Mean ... ... 25·05 per cent.

Group.	Cases.	Deaths.	Case Mortality. Per cent.
AGE.			
Under 20 years	340	56	16·47
From 20 to 25 years	8,647	2,132	24·66
„ 25 „ 30 „	2,879	762	26·47
„ 30 „ 35 „	341	98	28·74
„ 35 „ 40 „	52	23	44·23
„ 40 years and upwards ..	10	2	20·00
SERVICE.			
Under 1 year	4,890	1,102	22·54
From 1 to 2 years	2,686	654	24·35
„ 2 „ 3 „	1,602	450	28·09
„ 3 „ 4 „	1,097	300	27·35
„ 4 „ 5 „	790	232	29·37
„ 5 „ 10 „	1,137	327	28·76
„ 10 years and upwards ..	67	18	26·87

In both, the case mortality is seen to increase with increasing age and service, but far more distinctly with age, though the small number of cases in the extreme age groups (after 35) makes the significance of their ratios doubtful. The most interesting feature is the steadiness of the case mortality from the second to the fifth year of service in India.

So far, in stating the facts of the case, one has been on comparatively safe ground. In attempting to explain the observed results, there is much greater difficulty.

Taking the very definite decrease in incidence with increasing age and service, the first question must be—Is this obvious result free from fallacies? Are we comparing the effects of Enteric infection alone?

There appear to be three possible sources of error in attributing this decrease solely to increased age and service, alone or conjointly. These are—

1. The chances of infection are not equal at all ages and periods of service.
   (*a*) Adaptation.
   (*b*) The effect of attack; acquired immunity.
2. The question of diagnosis.
3. The question of selection in groups of greater age and longer service.

1. *The Inequality of the Chances of Infection.*—Here the "chance of infection" is taken to mean, not only the access of the infective agent to the body, but its inter-action with the organism.

(*a*) *Adaptation.*—When a young adult from the temperate regions arrives in a hot climate, such as India, a process of adaptation must take place before he may be said to have attained equilibrium in his new environment. This adaptation proceeds on two lines—the social and the physiological, which are, however, not independent. The mode of life of the older resident in hot climates differs considerably from the normal life in temperate regions in all externals—food, drink, clothing, exercise, and especially exposure to the sun. Most men find some modification in their habits necessary before they are making the best of themselves in the new climate. It is, however, somewhat remarkable that the British race—the most successful colonists—is more conservative in mode of life than almost any other. We retain our insular customs in new climates to an unusual degree, and probably this characteristic has increased, and is still increasing, the cost of our over-sea possessions. The new-comer rarely attains the happy mean on arrival. Usually, under the stimulus of the higher temperature, the clearer skies, and the new surroundings, he adopts an attitude of contempt for the precautions deemed necessary by the older resident. On the other hand, the more dramatic temperament plays the part with excessive emphasis by adopting extreme tropical mannerisms at once, and, like the Gallio, also fails to fit himself to his new surroundings. Both these types gradually learn what is required, and in a comparatively short time attain a better position in their new environment.

The physiological changes following arrival in a hot climate have been studied by many observers. The general result is, that the Europeans tend to resemble the adult native of the tropical area. These differ from the Europeans in many particulars, of which the more important are the more frequent pulse and respiration, the greater hyperæmia of the abdominal organs, increased skin secretion, and diminished excretion through the kidneys. The most important points as regards the new comer are the alteration of the heat-regulating mechanism, and an instability of the vaso-motor system generally, resulting in a slight elevation of the temperature, and a tendency to excessive perspiration and subsequent sudden cooling, leading to congestion of the internal organs, especially of those of the abdomen. On the other hand, the constitution of the blood appears to undergo but little change.

We find then in the new comer, a state of instability in the blood content of the abdominal viscera, as compared with a permanent hyperæmia in the older resident.

That is, the new comer, both socially and physiologically, is in unstable equilibrium, and it is at least permissible to suggest that one of its results may be an increased susceptibility to infection as compared with the older resident.

One knows, however, that this is not the only element; that it may not even be a considerable element in the process. The same excessive incidence among new comers is found in Paris, where, according to Louis, 79 per cent. of his cases of Enteric had lived less than 20 months in Paris, while Chomel found that 67 per cent. had been less than two years.* Here there may be a certain social adaptation, but the physiological changes cannot be of the same order as those in hot climates.

Following the stage of adaptation is that of suitability, which again is followed by that of depreciation. Any one of these stages may be absent, the second, indeed, is dependent on the first. Some individuals fail to adapt themselves to the new condition, and their health deteriorates from the first. In many the stage of depreciation (apart from definite disease) is reached sooner or later, and this, indeed, appears to be essentially due to blood changes, to anæmia, though the outward manifestation may be of a nervous type, either manifestly so, or less distinctly of a dyspeptic or hepatic variety. There appears to be much reason to believe that (excluding the less frequent causes of anæmia, such as Ankylostomiasis) these blood changes are largely, if not entirely, due to malarial infection. Ziemann, in fact, says that there is no question but that, where malaria can be eliminated, the white race—of pure blood—can become acclimatized, except only in low-lying tropical areas of high humidity and little monthly or daily variation of temperature.

Malaria is, unfortunately, still an important cause of disease and of ill-health (short of actual unfitness for work) in many countries. Malarial infection, combined with syphilis and, to a less extent, dysentery, accounts for much of the increasing liability to and mortality from disease generally which characterizes the older age groups, and particularly in India. One would imagine, unless there were some antagonism between Malaria and Syphilis and Enteric Fever, that the deterioration resulting from these infections would result in an increased susceptibility to specific enteric infection, and that (supposing them to be equally exposed to infection) in the older men we should have a relatively greater prevalence of enteric fever. We know, however, that such an increased prevalence does not occur, that, in fact, the older men are comparatively exempt, and that Malaria and Syphilis are not antagonistic to Enteric, and we can only conclude that they are either less exposed to infection or are for some reason less susceptible in spite of the general depreciation of their health.

The period of adaptation during the earlier service must then not be overlooked.

The second element in relation to the inequality of the chances of infection is—

(*b*) *Acquired immunity.—The effect of attack.*—The immunity acquired by attack is considerable. Our statistics of second attacks during the period of observation (usually = service) are incomplete, but the general experience is that repeated attacks are comparatively rare. Curschmann in 1,888 cases in Hamburg found 2·4 per cent. were under treatment for enteric fever in two separate attacks; the results of several other observers in Europe range about 2 per cent. Three and even four attacks are not unknown. But we really do not know how often the individual may be infected and give some degree of reaction. Nor do we know what degree of infection (and reaction) is necessary to confer some degree of immunity. We find that the results of a specific enteric infection may have as a lower limit an apparently simple attack of diarrhœa without febrile symptoms, which again (" Report of

* Brouardel, " Fièvre typhoïde."

the American Commission on Enteric Fever during the Cuban War") may confer some degree of protection.

Now, the older the age group, or the longer the period of service, the more certain it is that the proportion of individuals comprising the group, who have been infected and have reacted in some degree, is the greater, that is, the more certain it is that the proportion, with some degree of acquired immunity, is greater. So that in comparing one group with another we are not only comparing older men of longer service with younger men of shorter service, but groups with a higher, against groups with a lower degree of protection.

In this particular also, all groups are not strictly comparable.

Here it may be pointed out that the diminished incidence of enteric fever on the population of Great Britain may be partly responsible for the maintenance of the high degree of prevalence in India, as year by year fewer recruits have been attacked and have acquired some degree of protection.

2. *The question of diagnosis.*—We have to recognize that even a complete correlation table may not give us accurate information for two reasons. First, our methods of precision in diagnosis are so far somewhat cumbersome, and not always practicable; it would be difficut to apply them in *all* cases of possible specific enteric infection—diarrhœa, bronchitis—as well as all ephemeral fevers. But unless and until we have a systematic examination of *all* cases admitted to hospital, we shall be unable to obtain any accurate record of the milder infections. Secondly, these methods of precision, except a blood culture, are not always infallible, save after repeated observations.

For these reasons we have at present a record only of those reactions following infection which attain a certain degree of severity. We have not, and it seems impossible to obtain on any large scale, any record of the lesser degrees of infection and reaction.

Now, it is not unreasonable to suppose that an infection, which in the young adult, during the period of adaptation, would produce a decided reaction, may in the older resident act less severely, and so escape record. If this be so, the result will be an under estimation of the number of cases of infection among the elder men, and an exaggerated idea of their insusceptibility.

If enteric fever were not an infective disease, this question would be of purely academic interest; as things are, it is of great practical importance.

Here, again, our groups are not strictly comparable.

3. *The question of selection in groups of greater age and longer service.*—The characteristic of the British Army in India is the predominance of men under 30 years of age and five years' service, and if we turn to the distribution of enteric fever by age and service, we find that it is at these critical periods that the decrease in the diminution of the relative incidence becomes less marked; the incidences in later periods, though much smaller, differ less from group to group.

The question then is, has selection any influence in the groups beyond these critical points?

There are, of course, several processes of selection going on in the Army in India, the direct elimination of the less fit by the sure process of disease, and the (probably less exacting) examination for extension of service, where elimination is also (though indirectly) due to disease or injury. Direct disease elimination (natural selection) sets in from the date of arrival in India, and is a cumulative process more severe in later years. Artificial selection, examination for extension of service, may take place practically at any time during the first period of engagement, and so may have some small influence from the first, but its most important effect is towards the end of the first period of service. We have then, even in the first five years of service in India, a certain selection,* and the effect becomes greater in each succeeding period, especially after the critical points—30 years of age and five years' service.

We have in this way a coincidence between an increased liability to disease generally (even in selected men) and a decreased liability to one

* See the relative wastage from year to year already referred to.

specific disease, Enteric Fever. It certainly seems impossible to argue that physiological development and residence can, on the one hand, protect against one specific infection, and on the other diminish resistance to other specific infections. The two specifically "climatic" diseases which form the actual origin of the disease conditions and resultant inefficiency in these groups are Malaria and Dysentery, neither of which results in any relative immunity. Malarial infection at most results in tolerance; dysenteric infection is essentially relapsing. So we have in contrast one infection which produces some relative immunity, and two others which produce no immunity. The only common term which will include all three is the actual infection of the susceptible individual, producing on the one hand a diminished, on the other usually an increased susceptibility. This appears to be the only possible explanation of these results.

The only way, then, in which selection can have any influence on the relative incidence of Enteric fever is through the fact that the older a man is, and the longer in India, the more likely he is to have been exposed to Enteric infection, and to have survived.

We find, then, that the processes of adaptation, of natural protection by attack, and the influence of diagnosis all tend to vitiate the direct comparison as to susceptibility of the groups of older men and longer service with the others. We find also that selection among the older men can only have an influence in that these elder men have had more opportunities of infection.

So far we are unable to give numerical expression to the relative influences of age and of service. But careful consideration of the whole of the existing evidence cannot but lead to the conclusion that age alone is of secondary importance, that increasing age is really the expression of longer service, and that the influence of service is largely, and probably almost entirely, due to the greater probability of attack and protection.

If this be so, two practical results follow :—

1. Supposing that the minimum age at which the soldier is permitted to go to India were raised from 20 to 30, the mean incidence of Enteric fever would not be very materially lowered, provided other conditions (opportunities of infection) remained the same. It certainly would not fall to the present normal incidence at this age in India; it would probably fall in a somewhat less ratio than that between the incidences in the age groups 20 to 25 and 30 to 35 in the population of Great Britain—that is possibly about 10 per cent.

2. Instead of the slow and expensive process of protection by natural infection, we should employ the more rapid and safer process of artificial protection which now seems available.

ted gdom.

IV.—ON THE HEALTH OF THE TROOPS SERVING IN THE UNITED KINGDOM.

Sickness and Mortality.

The average strength of warrant officers, non-commissioned officers and men who served in the United Kingdom during the year 1906 was 124,412, including men detached from their corps, and 113,532 excluding such detached men.

The following table gives—(*a*) the admissions into hospital; (*b*) the deaths from disease and injuries; (*c*) the invaliding out of the Army; (*d*) the numbers constantly sick; (*e*) the average sick time to each soldier; and (*f*) the average duration of each case of sickness for each of the two years 1905 and 1906 amongst the troops quartered in the United Kingdom, excluding men detached, expressed as ratios per 1,000 of strength in the case of (*a*), (*b*), (*c*), and (*d*).

UNITED KINGDOM.

Ratio per 1,000 of Strength.								Average Sick Time to each Soldier. Days.		Average Duration of each case of Sickness. Days.	
Admissions.		Deaths.*		Invalided.*		Constantly Sick.					
1905	1906	1905	1906	1905	1906	1905	1906	1905	1906	1905	1906
449	447	2·7	2·9	18·2	14·4	26·4	24·9	9·6	9·1	21·5	20·3

This table shows that, except in the matter of death rate, which in 1906 was slightly higher than in 1905, there was an improvement in the health of the troops quartered in the United Kingdom in the year 1906, as compared with the previous year 1905.

A similar table for each of the various Commands is given below :—

* Calculated on strength, including men detached.

	Strength.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
		Admissions.	Deaths.	Invalided.	Constantly Sick.		
Aldershot	22,799	400	2·7	13·8	22·9	8·4 days	20·9 days
Northern	6,678	446	4·6	17·8	22·1	8·1 „	18·1 „
Southern	19,434	400	2·9	17·6	23·1	8·4 „	21·1 „
Eastern..	24,158	479	3·7	17·2	26·6	9·7 „	20·2 „
Western	5,001	368	2·8	13·4	16·1	5·9 „	16·0 „
London	5,769	806	2·4	24·4	48·4	17·7 „	21·9 „
Scottish..	4,844	367	6·2	13·2	20·8	7·6 „	20·7 „
Irish	22,155	463	2·4	13·7	25·7	9·4 „	20·3 „
Channel Islands	1,493	373	6·0	16·7	16·9	6·1 „	16·5 „
United Kingdom	113,532	447	2·9*	14·4*	24·9	9·1 days	20·3 days

* These ratios are calculated on a strength including men detached.

nited ingdom.

This table shows that the health of the troops quartered in London was much below that of any other Command in the year under review. As will appear later on, this result is largely attributable to the greater prevalence of venereal diseases in the London district. The death rate in the Northern Command was in excess, and those in the Scottish Command and in the Channel Islands considerably in excess of the death rate for all troops serving in the United Kingdom; but the numbers of troops quartered in these three Commands are small, and the death rates will be correspondingly liable to accidental fluctuations. They are also, no doubt, influenced by the amount of invaliding that takes place, a large amount of invaliding tending to lower the death rate by eliminating the lives with an "expectation of life" before the average.

Health Statistics according to Arms of the Service.

The following table compiled from the returns of Principal Medical Officers, shows the admissions, deaths, number of men invalided, and number constantly sick, from each arm of the service, with the ratios per 1,000 of the strength, and the corresponding ratios for the previous ten years:—

Arms of the Service.	Average Strength.	Admitted into Hospital.	Died.	Discharged as Invalids.	Average Number Constantly Sick.	Annual Ratio per 1,000 of Strength in 1906.				Average Ratio per 1,000 of Strength, for 10 Years, 1896–1905.			
						Admitted.	Died.	Invalided.	Constantly Sick.	Admitted.	Died.	Invalided.	Constantly Sick.
Household Cavalry	1,240	945	—	19	35	762	--	15·3	28·4	631	2·5	25·7	33·8
Cavalry	9,184	5,876	27	172	326	643	3·0	18·8	35·7	745	3·7	33·2	43·3
Royal Artillery	24,942	9,881	84	354	558	396	3·4	14·2	22·4	551	4·6	21·7	32·2
Royal Engineers	5,154	1,682	27	51	94	326	5·2	9·9	18·2	386	4·9	14·1	20·9
Foot Guards	6,897	4,694	12	143	320	681	1·7	20·7	46·5	791	4·1	42·4	59·3
Infantry	43,125	19,806	120	838	1,118	459	2·8	19·4	25·9	694	4·0	37·3	40·6
Regimental Depôts	11,960	4,381	59	116	177	366	4·9	9·7	14·8	585	6·2	19·4	25·7
Garrison Staff and Departments	11,080	3,450	34	99	194	311	3·1	8·9	17·5	383	4·5	16·9	25·3

nited ingdom.

This table shows that, having regard to the ratios per 1,000 of strength "constantly sick" and "invalided out of the service," the Foot Guards are much below the average of all troops serving in the United Kingdom, and occupy the lowest position for health and health efficiency of any arm of the service. Next above the Foot Guards comes the Cavalry, then the Household Cavalry, the Infantry, the Royal Artillery, the Royal Engineers, the Garrison Staff and Departments, and the Regimental Depôts, in this order. The constantly sick ratio in the Foot Guards is 87 per cent. in excess of the average for all troops in the United Kingdom, whilst the invaliding rate is 37 per cent. in excess. Further comments on the health of the troops serving in the London District appear on page 54 of this Report.

Health Statistics according to Age.

The following table has been prepared to show the influence of age on sickness, mortality, and invaliding among the troops serving in the United Kingdom during the year 1906 :--

Ages.	Average Strength.	Admissions.	Deaths.	Invalids.	Ratio per 1,000 of Strength.		
					Admissions.	Deaths.	Invaliding.
Under 20 years	31,373	16,212	46	410	517	1·5	13·1
From 20 to 25 years ..	38,925	24,180	100	748	621	2·6	19·2
„ 25 „ 30 „ ..	20,769	6,544	57	309	315	2·7	14·9
„ 30 „ 35 „ ..	11,939	2,024	69	138	169	5·8	11·6
„ 35 „ 40 „ ..	6,929	1,169	59	142	169	8·5	20·5
40 years and upwards ..	2,396	381	32	44	159	13·4	18·4
Not stated (on manœuvres)	1,201	205	—	1	171	—	·8
Total	113,532	50,715	363	1,792	447	*2·9	*14·4

* Calculated on strength including men detached (10,880).

The figures are very similar to those of 1905, with the exception that whereas in 1905 the admission rate of troops on manœuvres was 98 per 1,000 of strength, in 1906 the corresponding figure was 171—a 43 per cent. increase. In 1906, the invaliding rate of men aged 20 to 25 years was only 19·2 per 1,000 as compared with 26·2 in 1905—a 27 per cent. reduction.

HEALTH STATISTICS ACCORDING TO LENGTH OF SERVICE. *United Kingdom.*

Service.	Average Strength.	Admissions.	Deaths.	Invalids.	Ratio per 1,000 of Strength.		
					Admissions.	Deaths.	Invalids.
Under 1 year	29,213	18,769	42	440	642	1·4	15·1
From 1 to 2 years ..	18,543	8,245	31	287	445	1·7	15·5
„ 2 „ 3 „ ..	13,472	7,071	34	184	525	2·5	13·7
„ 3 „ 4 „ ..	7,958	2,704	16	121	340	2·0	15·2
„ 4 „ 5 „ ..	7,642	2,431	27	100	318	3·5	13·1
„ 5 „ 10 „ ..	15,762	7,569	62	338	480	3·9	21·4
10 years and upwards ..	19,741	3,721	151	321	188	7·6	16·3
Not stated (on manœuvres)	1,201	205	—	1	171	—	·8
Total	113,532	50,715	363	1,792	447	*2·9	*14·4

* Calculated on strength including men detached (10,880).

DEATH RATES.

The following table contrasts the death rates of the troops serving in the United Kingdom in 1906 at the different age periods with the average death rates of the male civil population of England and Wales for similar age periods during the three years 1903–4–5 :—

DEATH RATES PER 1,000.

Age Period.	Army Service in 1906.	Male Civil Population.
Under 20 years	1·5	3·0 (15 to 20 years)
20—25 „	2·6	4·1
25—30 „	2·7	5·7
30—35 „	5·8	
35—40 „	8·5	9·5 (35 to 45 years)

United Kingdom.

From these figures it would appear that the health of the Army is superior to that of the civil male population of similar ages; but, as will be pointed out later on, the influence of invaliding in the Army invalidates any general conclusion that could be drawn from a consideration of death rates alone.

Diseases and Injuries.

The following table shows, for the year 1906, the deaths and numbers invalided out of the Army from the principal causes of death and invaliding amongst the troops quartered in the United Kingdom. The death rate per million amongst the troops is given for the principal causes of death; and, for comparison with the male civil population of similar ages, the average death rate per million from the same causes amongst males in England and Wales, aged 15 to 35 years, for the three years 1903, 1904, and 1905, is also appended. The figures from which these rates were calculated were kindly supplied by Dr. John Tatham, from the General Register Office, Somerset House :—

Diseases.	United Kingdom.			England and Wales.
	His Majesty's Military Forces, 1906.			Average Death Rate per Million amongst males aged 15-35, for 1903-4-5.
	Deaths.	Invalided.	Death Rate per Million.	
Enteric Fever	11	—	88	168
Tubercle of Lung	29	238	233	1,545
Other Tubercular Diseases ..	9	27	72	216
Alcoholism	4	4	32	39
Septic Diseases..	5	—	40	51
Rheumatic Fever	1	2	8	57
Diseases of the Heart.. ..	27	223	217	322
Diseases of the Circulatory System	14	46	112	57
Diseases of the Respiratory System	78	48	627	476
Diseases of the Digestive System	36	214	289	222
Diseases of the Urinary System	16	43	129	129
Injuries and Suicide	62	80	498	580
All other causes	71	776	571	651
	363	1,792	2,918	4,513

Judging from the death rate alone, it would appear that the health and vitality of the military forces in the United Kingdom are superior to those of males of the same ages amongst the civil population, but the column of invaliding tends to correct this first impression, although it does not supply any exact factors for correcting the recorded death rates. It is obvious that the men invalided out of the Army for chronic diseases are not healthy lives, and that many of them will succumb sooner or later to the diseases which they contracted in the Army and brought out with them on their return to civil life. *United Kingdom.*

Enteric Fever.—The death rate from *enteric fever* amongst the troops in the United Kingdom in 1906 was only about half the average enteric fever death rate for the 3 years 1903–4–5 amongst males aged 15 to 35 of the civil population of England and Wales. Only 73 cases were admitted to the military hospitals in 1906, which is equivalent to a case rate of 5·87 per 10,000 of strength, and will compare very favourably with a similar case rate amongst the civil population of like ages. It is evident from these figures that in the United Kingdom the environments of the troops generally are less favourable to the onset of enteric fever than is the case amongst the civil population; and from this it may be concluded that the sanitary conditions of the barracks and quarters occupied by the troops, and the purity of their water supplies, are all matters which are receiving the attention that their importance to the health of the troops justifies. The reports from the Principal Medical Officers also indicate that in their various Commands in 1906 the majority of the small numbers of cases of enteric fever occurring contracted the infection of the disease elsewhere than within the military precincts of barracks and quarters.

Tubercle of the Lung.—In the case of *tubercle of the lung* the death rate in the Army (United Kingdom) is only about one-seventh of that prevailing in civil life amongst males of similar ages; but although there were only 29 deaths amongst the troops in 1906, 238 men were invalided out for this disease, and it is reasonable to suppose that, within 3 years of discharge from the Army, at least 50 per cent. of these 238 men will have succumbed to the disease, or at the rate of 40 per year. If these men had remained in the Army and not been discharged, there would be an annual increase of the death toll of 40, and the death rate from tubercle of the lung would be more than doubled. Even then, however, it would be only about one-third of the civil death rate from this disease, so it is obvious that under existing conditions men serving in the military forces of the United Kingdom show a greater freedom from pulmonary tubercle than does the male civil population of like ages.

Diseases of the Heart.—In *diseases of the heart*, again, although the death rate is below that of civil life (217 per million as compared with 322), there is a large amount of invaliding. Out of the 223 men invalided, 215 were the victims of valvular disease, and in addition 91 men were invalided for disordered action of the heart intractable to treatment. It is not easy to compute what would be the additional death roll from heart diseases if these invalided men had remained in the Army, as the duration of life of men suffering from valvular disease is uncertain, although on the whole there must be a strong tendency to shortening of life. Still, the death and invaliding figures, taken together, appear to be indicative of unhealthy conditions attaching to military life which react especially on the heart and large blood vessels, and which are of less frequent occurrence in the lives of the male civil population. Whether these conditions are those of stress and strain from physical exercises or drill not conceived on a physiological basis, and carried out without due regard to fatigue, or whether they are connected with the nicotine habit or other causes, is a question which demands attention. A Special Committee is at present engaged in investigating this matter. There certainly does not appear to be such an antecedent amount of rheumatic fever amongst the troops as would account for the large amount of subsequent invaliding for valvular heart troubles.

United Kingdom.

Diseases of the Circulatory System.—The death rate from *diseases of the circulatory system* (chiefly aneurysm) amongst the troops in 1906 was nearly double that of civil life; and this fact tends to confirm the impression produced by the figures for heart diseases, namely, that a military life tends to the inducement of special strain on the heart and arterial system. Most of the men invalided under this heading were suffering from varicose veins or phlebitis.

Diseases of the Respiratory System.—In *diseases of the respiratory system* the military death rate is above that of civil life (627 per million as compared with 476). Out of the 78 deaths in the Army, 59 were due to pneumonia, 4 to broncho-pneumonia, and 5 to acute phthisis (? non-tubercular), whilst 2 only were due to bronchitis. It would appear to be the fact that fatal pneumonia is somewhat more prevalent in the Army than amongst males of similar ages in civil life.

Diseases of the Digestive System.—The death rate from *diseases of the digestive organs* in the troops quartered in the United Kingdom is also slightly above that of civil life (289 per million as compared with 222), but the deaths include 6 cases of hepatitis and 7 of liver abscess, probably contracted in the tropics. Of the 214 men invalided, 147 were discharged from the service for caries of the teeth. This fact alone seems to indicate either that very little attention is paid in barracks to the care of the teeth, and that insufficient examination is made of the teeth at a date sufficiently early to correct the progress of the caries, or else that the food is of such a nature, either from original quality or defective preparation, as to predispose to the occurrence of caries. This is a matter into which it would probably be advantageous to make careful inquiry, with the view of diminishing the present large amount of invaliding from a condition which is easily preventable, if recognized sufficiently early.

Injuries and Suicide.—The death rate from *injuries and suicide* is distinctly less during peace time amongst the troops of the United Kingdom than in civil life; and this, no doubt, is accounted for by the fact that in the Army but very few men are brought into relation with machinery, or exposed to the risk of serious accident that is inherent in many kinds of industrial occupations. As will appear, however, in a subsequent table, there is a great deal of inefficiency the results of accidents and injuries, 11·8 per cent. of the average number of men constantly sick in 1906 being due to this cause.

MILITARY INEFFICIENCY FROM SICKNESS.

United Kingdom, 1906.

Diseases.	Average Number Constantly Sick from Various Causes.	Percentage of Total.
Infectious Diseases (Influenza 66)	121	4·3
Ague and Remittent Fever	20	·7
Major Septic Diseases	3	·1
Minor Septic Diseases	183	6·5
Venereal Diseases	820	29·1
Scabies (69) and other Parasitic Diseases (9)	78	2·8
Tubercular Diseases	36	1·3
Rheumatic Fever	18	·6
Rheumatism, &c.	83	2·9
Nervous and Mental Diseases	53	1·9
Diseases of Eye and other Organs of Special Sense	84	3·0
Diseases of Heart and Circulatory Organs ..	88	3·1
„ Respiratory Organs	161	5·8
Sore Throat and Tonsillitis	187	6·6
Diseases of Digestive Organs	194	6·9
„ Urinary System	17	·6
„ Generative Organs	49	1·7
„ Organs of Locomotion	94	3·3
„ Skin (excluding Boils, &c.) ..	102	3·6
Injuries, &c.	333	11·8
All other Causes	95	3·4
Total	2,822	100·0

From the above table it appears that out of the total force of 113,532 (excluding detached men) men quartered in the United Kingdom in 1906, 2,822 were on the average throughout the year constantly away from duty for one or another of the causes specified in the table. The ratio of constant sickness per 1,000 of strength is 24·9, or 2·49 per cent.

Venereal Diseases.—The table shows that *venereal diseases* (syphilis, gonorrhœa, and soft chancre) account for 29·1 per cent. of the total inefficiency; if to this is added the 1·7 per cent. for other diseases of the generative organs (balanitis, phimosis, orchitis, &c.), a total inefficiency for diseases of the male generative organs (venereal and non-venereal) of 30·8 per cent. is obtained. These diseases constitute by far the largest portion of the inefficiency of the troops from disease or physical disablement, injuries (11·8 per cent. of the total) taking the second place.

United Kingdom.

The amount of venereal disease in the several military divisions of the United Kingdom varied considerably in 1906, as the following table shows :—

Admissions to Hospitals for Venereal Diseases.

	Strength.	Ratio per 1,000 of Strength.
UNITED KINGDOM	113,532	82
Aldershot Command..	22,799	69
Northern ,, ...	6,678	91
Southern ,, ...	19,434	70
Eastern ,, ...	24,158	76
Western ,, ...	5,001	46
London District	5,769	186
Scottish Command	4,844	81
Irish ,, ...	22,155	94

London shows a bad pre-eminence in respect of admissions to hospital for venereal diseases. It seems probable that the amount of disease in the different commands varies with the opportunities afforded to the men for promiscuous intercourse with the other sex, and that this can only be met by the provision of such means of recreation for the men and useful employment in their leisure hours as will divert them from the pursuit of pleasure and consort with vicious persons.

In addition to the hospital admissions for venereal disease, it must be stated that 4 deaths occurred from syphilis in 1906, and 52 men were invalided out of the Army for the same cause, whilst 7 men were invalided for gonorrhœa in the same period.

On the whole, it is apparent that the question of the prevention of the existing inefficiency from disease in the Army is largely one of the control of venereal disease; and any measures which have been practically found available and unobjectionable on other grounds for dealing with the mischief should receive every encouragement in the interests of health, decency and efficiency.

Minor Septic Diseases.—Attention may, perhaps, be called to the extent to which minor septic diseases prevail in the Army at home, accounting as they do for 6·5 per cent. of the total inefficiency. In this group are included inflammation of lymphatics and lymphatic glands, inflammation and abscess of connective tissue, boils, ulcers, carbuncles, whitlow, onychia, and other affections apparently due to septic infection.

The following table shows that in London these minor septic diseases are unduly prevalent :—

Admissions to Hospital for Minor Septic Diseases.

	Ratio per 1,000 of Strength.
UNITED KINGDOM	88
Aldershot Command	33
Northern ,, ...	32
Southern ,, ...	29
Eastern ,, ...	44
London District	74
Irish Command	40

Taking these figures into consideration, together with those for the prevalence of scabies, and for inflammatory conditions of the generative organs, some doubt may be expressed as to whether the conditions of personal cleanliness and cleanliness of underclothing receive sufficient attention amongst the troops; and whether, even admitting that proper facilities are everywhere available for bodily bathing and cleansing of clothes, that the attention of the men has been sufficiently directed to the necessity of personal cleanliness and cleanliness of clothes. The class from which soldiers are drawn is unfortunately but little conversant with the subject of personal hygiene; and it would seem desirable that some effort should be made, now that sanitation is being taught in the Army, for personal hygiene and the acquisition of healthy habits receiving their proper share of attention. *United Kingdom.*

Sore Throat and Tonsillitis.—An almost exactly similar proportion of inefficiency to that caused by these minor septic troubles was due in 1906 to *sore throat and tonsillitis.* The following table shows the relative prevalence in three commands for which the figures are to hand:—

	Ratio per 1,000 of Strength.
United Kingdom	48
Aldershot Command	58
Northern „	35
London District	82

In the Aldershot Command the Principal Medical Officer states that sore throat is endemic, the cause being unknown. In London, however, the prevalence is even greater. It may be questioned whether sore throat and tonsillitis should be as prevalent as they are amongst healthy men of the Army ages, and whether further attention should not be paid to the conditions provocative of so much throat illness. The freedom of the troops from diphtheria is no doubt satisfactory; but then it must be recollected that after the age of 15 years the predisposition to diphtherial attack is notably diminished, as compared with the school ages of 5 to 15 years, and that nearly all those on the Army strength are over 17 years of age.

Infectious Diseases.—The comparatively small amount of sickness due to *infectious diseases* in 1906 is satisfactory. Influenza accounted for more than half of the total inefficiency under this head, and caused 2,041 admissions. Scarlet fever accounted for 101 admissions, Mumps for 97, Measles for 85, Simple Continued Fever for 76, Enteric Fever for 73, and Diphtheria for 59. (There were no cases of small-pox during the year under review.)

Tubercular Diseases.—The small amount of inefficiency due to *tubercular diseases* is also noteworthy. This result is, no doubt, attributable partly to the great attention now paid in barracks to good ventilation and a sufficiency of cubic space per head; but perhaps in even greater measure to the care taken to discover and segregate early cases of pulmonary tuberculosis, and the prompt invaliding out of the Army of men so affected, whose condition has become chronic and without hope of early arrest and cure. In this manner the opportunities afforded for the spread of tubercular infection in barracks are reduced to a minimum.

Debility.—A condition of *debility* without recognizable disease caused 657 admissions in 1906, an average number constantly sick of 36 (1·3 per cent. of the total inefficiency), and 55 men were invalided out of the Army for this cause. It would be interesting to know in somewhat more detail from the Principal Medical Officers what are the causes of this condition of debility.

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Nervous Disorders.—The conditions influencing the occurrence of general debility are possibly in some way related with the prevalence of *functional nervous disorders* amongst the troops. In 1906, vertigo, headache, neuralgia, hysteria, and nervous weakness caused 362 admissions, an average number constantly sick of 17, and 17 men were invalided out of the Army for these disorders. As in respect of debility, so it would be interesting to know whether the causes of these functional nervous disorders are to be sought in Army conditions or are attributable to bad health and defective upbringing prior to enlistment.

Prevalence of Disease.—Taking account of all the figures which have been under review in the foregoing pages, it would appear that, apart from the question of Venereal Diseases, which is a matter requiring special consideration and special methods of prevention, there was, as compared with a healthy male civil population of similar ages, undue prevalence amongst the troops quartered in the United Kingdom in 1906 of the following diseases:—1. Minor Septic Diseases; 2. Scabies; 3. Sore-throat and Tonsillitis; 4. Inflammatory Diseases of the Generative Organs (non-venereal); 5. Debility and Functional Nervous Disorders; 6. Valvular heart trouble and disordered action of the heart; 7. Aneurysm; 8. Pneumonia; 9. Widespread caries of the teeth.

There can probably be no question that much of the disease and the military inefficiency it causes in the Army are due to poverty of some of the material recruited into the ranks from the lower wage-earning classes. There can also be no question that whilst this is a state of things unavoidable under the conditions of voluntary service now existing, where the Army as a profession enters into competition with all the labour employing trades and industries of the country, the most promising remedies to be sought are the education of the soldier during his period of service in those matters of personal hygiene that affect his health and comfort, and the endeavour to raise the standard of his life by the provision of such sanitary surroundings as are essential in a civilized community. A soldier's period of service with the colours should not only equip him with a military training, but should also turn him out a useful and healthy unit of society, when he leaves the Army to return to civil life.

Vaccination.

In the accompanying table will be found the conditions as to vaccination of all recruits found fit for the service during the year, together with the proportion per 1,000 of each condition:—

1906.	Number of Recruits found on Inspection fit for the Service.	Proportion per 1,000.
Had marks of vaccination	40,863	962·5
Had marks of small-pox	70	1·6
Had neither marks of vaccination nor of small-pox	1,522	35·9
Total	42,455	1,000·0

As compared with the results in the preceding year, an increase of 2·5 per 1,000 is observed amongst recruits bearing marks of vaccination, a decrease of ·3 amongst those bearing marks of small-pox, and a decrease of 2·2 amongst those bearing neither marks of vaccination or small-pox.

United Kingdom.

The following tables (p. 58), compiled from the annual returns of Principal Medical Officers, show the number of vaccinations performed during the year, with the proportions per 1,000 of perfect or modified results or failures, amongst individuals vaccinated with lymph from the Army Vaccine Institute, Aldershot, or with lymph from other sources.

The primary vaccinations and re-vaccinations during the year, as shown in these tables, give a total of 33,430 operations among all classes of soldiers. This number is less by 1,066 than the number of vaccinations in the preceding year. The number of vaccinations among recruits was 30,857, an increase of 369, and the number among soldiers, other than recruits, 2,573, being a decrease of 1,435. The number of recruits found on inspection fit for service during the year was 42,455, and as the number vaccinated was 30,857, as recorded by the returns furnished to the War Office, there are 11,598 not accounted for in the vaccination tables. This is explained by the fact that recruits who joined from the militia had been satisfactorily vaccinated while in that force, while others enlisted so late in the year that the results of their vaccination do not appear in the returns; in some instances, also, recruits have deserted before vaccination could be carried out. Amongst all classes of soldiers, as shown in Table III, primary vaccinations, compared with the corresponding results in 1905, show a decrease of 18·2 per 1,000 in perfect results, but increases of 3·4 and 14·8 in the proportion of modified results and failures respectively. As regards re-vaccinations, a decrease of 28·5 is shown in the proportion of perfect results, but increases of 17·4 and 11·1 are observed in the proportion of modified results and failures respectively.

WOMEN.—There were 23 primary vaccinations among the women, 20 with perfect results, 2 modified results, and 1 failure; and of 151 cases of re-vaccination, 123, or 814·6 per 1,000, had perfect results, 14, or 92·7, modified, and 14, or 92·7 per 1,000, were failures.

Compared with the previous year, there is an increase of 88·8 of perfect results, a decrease of 90·1 of modified results, and an increase of 1·3 in the proportion of failures.

CHILDREN.—The number of primary vaccinations among the children was 3,024, of which 2,837 had perfect results, and 187 were failures, equal to 938·2 and 61·8 per 1,000 respectively. Compared with the results for the previous year, a decrease of 10·5 is shown in perfect results, and a corresponding increase in the proportion of failures. In 294 cases of re-vaccination there were 234 perfect results and 60 failures, equal to ratios of 795·9 and 204·1 per 1,000 respectively, which, compared with similar ratios in 1905, show a decrease of 16·1 in perfect results, and a corresponding increase in failures.

Results.	Vaccinated during the Year.						Proportion per 1,000.					
	With Lymph from Army Vaccine Institute, Aldershot.		With Lymph from Other Sources.		Total.		With Lymph from Army Vaccine Institute, Aldershot.		With Lymph from Other Sources.		Total.	
	Primary Vaccination.	Re-Vaccination.	Primary Vaccination.	Re-Vaccination.	Primary Vaccination.	Re-Vaccination.	Primary Vaccination.	Re-Vaccination.	Primary Vaccination.	Re-Vaccination.	Primary Vaccination.	Re-Vaccination.
TABLE I.—*Recruits.*												
Perfect vaccine pustules	691	17,531	—	—	691	17,531	893·9	582·8	—	—	893·9	582·8
Modified vaccine pustules	52	7,844	—	—	52	7,844	67·3	260·7	—	—	67·3	260·7
Failures	30	4,709	—	—	30	4,709	38·8	156·5	—	—	38·8	156·5
Total	773	30,084	—	—	773	30,084	1,000·0	1,000·0	—	—	1,000·0	1,000·0
TABLE II.—*Soldiers other than Recruits.*												
Perfect vaccine pustules	6	847	—	1	6	848	545·5	330·7	—	1,000·0	545·5	331·0
Modified vaccine pustules	—	1,029	—	—	—	1,029	—	401·8	—	—	—	401·6
Failures	5	685	—	—	5	685	454·5	267·5	—	—	454·5	267·4
Total	11	2,561	—	1	11	2,562	1,000·0	1,000·0	—	1,000·0	1,000·0	1,000·0
TABLE III.—*Soldiers and Recruits.*												
Perfect vaccine pustules	697	18,378	—	1	697	18,379	889·0	563·0	—	1,000·0	889·0	563·0
Modified vaccine pustules	52	8,873	—	—	52	8,873	66·3	271·8	—	—	66·3	271·8
Failures	35	5,394	—	—	35	5,394	44·7	165·2	—	—	44·7	165·2
Total	784	32,645	—	1	784	32,646	1,000·0	1,000·0	—	1,000·0	1,000·0	1,000·0

SANITATION.

United Kingdom.

As a whole the sanitary condition of Barracks and Quarters at Home has been maintained at a satisfactory standard.

The Reports of the Sanitary Officers of Commands and Districts show that with but few exceptions no outbreaks of disease among the troops can be attributed to any sanitary defects.

The development of sanitary knowledge has, however, within recent years been so rapid that a standard of sanitation accepted as satisfactory to-day may prove in the near future to have fallen far short of health requirements. The study of the etiology of diseases is constantly bringing to light new factors bearing on health, and a state of sanitation considered sufficient in the past is now frequently shown to have been defective. In fact the terms "old" and "out-of-date" as applied to sanitary questions have come to be looked upon as practically synonymous with the words "insanitary" and "unhealthy." The comparative freedom of the troops from those diseases generally associated with insanitary surroundings indicates, however, the prevalence of a healthy standard of sanitation, although the credit of this is in the majority of cases attributable more to measures of cleanliness than to the sanitary excellence of the Barrack buildings and their environments.

Two instances may be quoted as exceptions to the general statement dissociating disease with the sanitary state of barracks—the one relates to Woolwich, the other to the barracks at Worcester.

At Woolwich the continued prevalence of sore throats has from time to time attracted attention, and on several occasions has been the subject of special enquiries, but without any beneficial result.

This year a further investigation was conducted by the Specialist Sanitary Officer, Southern Area Eastern Command, who in his report draws an analogy between the seasonal prevalence of sore throats and influenza among the men and the occupation of certain Artillery Barracks, and hints at a probable causal relationship between the defective sanitary state of the barrack rooms, particularly in regard to ventilation, and the prevalence of these diseases.

In regard to Worcester it is stated that it is highly probable that the eight cases of Diphtheria which occurred at that station during the year were due to a defective state of the drainage system.

In regard to Camps, three severe outbreaks of infectious diseases were reported during the year. The first related to an epidemic of Enteric Fever in the Hon. Artillery Company's camp at Bulford, the second to an epidemic of Enteric Fever chiefly amongst the officers of the 3rd Battalion Loyal North Lancashire Regiment at Fleetwood, and the third to an outbreak of sore throats among the boys of the Duke of York's School encamped at Hythe. Both at Bulford and Fleetwood the origin of the outbreaks was attributed to infection introduced from without, and only at the latter (Fleetwood) could its subsequent spread be traced to neglect of sanitary measures within the camp area.

In the case of Hythe the site selected for the encampment had been fouled by previous occupation, and its condition gave rise to a suspicion that the outbreak of sore throats was in some measure due to the unsatisfactory state of the camp site and its surroundings.

Although little exception can be taken to the standard of cleanliness maintained in barracks, the condition of many of the barrack buildings presents serious structural defects and shortcomings when viewed from a sanitary standpoint. These have been brought to notice from time to time, but the remedy, in many cases involving complete replacements, will entail an enormous expenditure. Moreover, our military requirements and sanitary standards are so subject to change that no finality can be hoped for, and barracks erected in accordance with present day Military and sanitary requirements may in the near future be found inconveniently

United Kingdom.

situated and of out-of-date construction. Thus the present policy of gradually replacing the oldest barracks and renovating those of a less ancient date has much to commend it.

Barrack construction within comparatively recent years has undergone considerable change, and in considering our future requirements in this respect not only have we to be guided by questions having a direct bearing on health, but we must also take into consideration that wider field of sanitary problems which involve the comfort of the soldier, and so indirectly influence his welfare. In addition the establishment of a higher standard of education and domestic comfort among that class of the civil community from which our recruits are drawn forces us on grounds of policy to treat sanitary questions from a different standpoint than formerly.

Thus the provision of hot water in barracks for ablution purposes, the construction of cubicles as sleeping accommodation, the installation of electric or incandescent lighting, the provision of independent water-closet apparatus, &c., may not be actual sanitary essentials, yet by encouraging habits of cleanliness and by making barrack life more comfortable and attractive, they indirectly act as potent factors in the maintenance of health as well as assist recruiting. Our present-day requirements are, therefore, much more exacting in regard to comfort than those of previous years.

In reviewing the general condition of Barracks at Home it will be convenient to deal with the various sanitary items under the following heads:—

Barrack Buildings.—It is impossible to look upon many of the older barrack buildings, such as those at Cahir, Fermoy, Hulme Barracks Manchester, Coventry, Birmingham, &c., as satisfactory habitations for groups of men similarly situated to the soldier. The walls of the buildings are, in many instances, old and dilapidated, the appearance of the rooms are dismal and comfortless, the floorings rotten, the ventilation defective, and the lighting bad; in fact their state is such that nothing short of demolition and complete re-construction can bring them up to the modern standard of sanitary requirements.

At some stations, *e.g.*, Portland, &c., the old type of casemate barracks are still in occupation, though their numbers are gradually diminishing. By affecting a reduction in the number of occupants, and thus allowing a greater superficial area per head, many of the older buildings have been rendered free from danger as far as the health of the occupants is concerned, but this measure can only be looked upon as a temporary expedient pending either the complete re-construction of the existing buildings or a transfer of the garrison elsewhere.

Reports from the various Commands show that each District, with but few exceptions, possesses its quota of old out-of-date barracks.

From the Scottish Command, it is stated that "structural defects and out-of-date conditions exist in most of the barracks, with the exception of Maryhill, Glencorse, Inverness, and a portion of Leith Fort." A late decision to replace the Cavalry Regiment at Piershill by a Brigade of Artillery was based on the ground that the sanitary condition of the buildings is such as, in the interests of health, to necessitate a reduction in the number of the occupants.

Reports from the Western Command show that a large number of old dilapidated buildings are in occupation within that area, while reports from the Eastern Command state that "conspicuously among the distinctly bad barracks are those at Chatham, and some of those at Woolwich."

Reports from Ireland likewise indicate the existence of many barrack buildings (*e.g.*, Newbridge and Ballincollig) in a condition equal to, if not worse, than those referred to above. On the other hand, the recent tendency of military organization to concentrate large bodies of troops in specially selected areas for training purposes has led to the construction of several modern type barracks at various military centres, such as those of Aldershot, Tidworth, Colchester, and the Curragh. Here well-designed and well-equipped buildings, provided with suitable sanitary conveniences, are to be found.

At Tidworth, in the Salisbury Plain District, in particular, the barracks are well reported on, and the provision of improved dining and bathing accommodation is much appreciated by the men. *United Kingdom.*

The system of providing cubicles as sleeping accommodation has not as yet been put into practice, although the principle has been accepted in the designs of the new barracks for Windsor.

The introduction of the Restaurant System into new barracks where separate dining room accommodation is provided is well spoken of, and its advantages appear to be fully realized by both regimental officers and men. It is becoming largely adopted throughout the various Commands at Home, and, where special dining halls do not exist, disused barrack rooms are frequently re-appropriated temporarily for the purpose. The principal advantages claimed for the system are—

(1) That it affords a greater variety in food, combined with economy.
(2) That meals are served hot, and in a neater and more cleanly manner.
(3) That the barrack rooms used as sleeping accommodation are kept clean.
(4) That the ventilation of the barrack rooms can be more readily carried out when not used for meals.

During the year special dining rooms were provided for various barracks, including those at Bury and Bedford, while others have been recommended for Lancaster Barracks, Newcastle, Newport, Wrexham, and Shrewsbury.

Drainage.—The expenditure on drainage invariably constitutes a large portion of the Annual Vote for Engineer Services, and may be looked upon as a sure sign of the attention paid to this most important subject.

The general unsatisfactory state of affairs in respect of drainage which prevailed in civil as well as Military life 20 or 30 years ago owing to lack of knowledge of the true principles of sanitary engineering accounts for the defective nature of the drain in many barracks. Since then a vast improvement has taken place, and numerous important barracks have had their drains entirely remodelled. But the necessary restriction on public funds has operated to prevent the universal adoption of remedial measures. There, however, are still many barracks which demand attention, though it must be noted that these are of comparatively secondary importance, and in some cases are those which may very shortly be abandoned.

In some of the older barracks, *e.g.*, Cahir, Kingston-on-Thames, and Leicester, the condition of drainage is such as to require complete and immediate reconstruction, while at others partial reconstruction only is called for.

Among the more important stations at which drainage reconstruction is required may be mentioned Ipswich, Ely, York, Fleetwood, Warrington, Worcester, Hilsea, Netley, Ayr, and Belturbet, while at Brighton, Carlisle, Lancaster, Alnwick, and Newcastle large drainage works have been carried out during the year. Existing defects brought to notice in connection with barrack drainage systems include lack of ventilation of drains, insufficient gradients whereby the flow tends to become blocked, defective trappings, faulty junctions, and leakages due to badly constructed joints. At Mullingar the drainage system is reported as very old and in a bad condition, at Belturbet the drains are insufficiently trapped, while at Newcastle, York, Warrington, &c., the gradients are so slight that constant flushing is necessary to prevent the drainage system from becoming completely blocked.

In one instance at least (Clothing Factory, Pimlico) no record of the plans of the drainage has been left, and without complete exposure of the whole system it is impossible to trace the connections of the various drain pipes with each other. In repairing a portion of this drainage system during the year it was found that some of the broken pipes had been repaired (?) with canvas.

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At Aldershot serious defects necessitating repair were discovered in the drainage system of Marlborough Lines, due chiefly to the growth of tree roots and occlusion of the pipes.

In regard to surface drainage the most important item among a series of minor defects brought to notice is the almost complete absence of efficient surface drainage at Bordon in the Aldershot Command. Owing to heavy rains and sandy character of the soil the ground adjoining the brick surface channels has been washed away, leaving the drains standing above the level of the surrounding soil, thus rendering them practically inoperative.

Water Closet.—Although a water-carriage system of excreta removal has been generally adopted at our Home Stations, the dry earth and pail method is still in vogue at many of the older barracks, particularly those in the Northern and Western Commands.

The objection to dry-earth closets are well known, and require no comment. Their replacement by water closets of a modern type is being gradually carried out, and the final abolition of the earth closet from permanent barracks, now a question of time and expenditure only, presses for early consideration. The older pattern trough latrines have been condemned on sanitary grounds, and the later pattern wash-down closets are provided in new barracks while gradual replacement is being carried out in the older buildings.

During the year new pattern closets were supplied to Woolwich, Bedford, Hertford, Huntingdon, Ipswich, Warley, and Weedon in the Eastern Command, to Lincoln and Newcastle in the Northern Command, and at Devonport, Enniskillen, and Ayr in the Southern, Irish, and Scottish Commands.

Urinals.—The provision of night urine tubs in barracks is generally condemned by Specialist Sanitary Officer on the ground that their use leads to pollution of the floors and walls of the passages either during micturition or in the subsequent conveyance of the tubs when full. Hence these tubs are being gradually but slowly discarded, and properly constructed night urinals connected with the drainage system provided in lieu. During the year a number of urinals were constructed in various barrack buildings, and it is proposed to still further continue their provision as funds become available.

Baths and Washhouses.—The Bath and Lavatory accommodation has undergone considerable improvements within recent years. The old slate bath, though still existent in some barracks, is now generally replaced by the more modern immersion bath, while in some of the latest buildings, such as those at Tidworth, Bordon, and Portsmouth (few) shower baths are provided. The latter (shower baths) are very favourably reported on by medical officers, and are stated to possess many advantages over the ordinary pattern immersion baths. They are more suited to large bodies of troops, and there is no risk of contracting infectious diseases by their use. The remodelling of the baths and lavatory accommodation at Hounslow was effected during the year, and among numerous other improvements carried out at various stations are included a number of smaller items relating to to the provision of baths and hot-water apparatus for ablution purposes. The supply of hot water for personal washing has been greatly extended during the past few years, and hot water is now generally recognized as a sanitary necessary in barracks. The provision of fixed footbaths for the troops at Tidworth is an innovation concerning the general utility of which there cannot be any doubt, and it is hoped that their adoption will become general.

Lighting.—The general lighting of barracks as a rule leaves much to be desired. In the majority of the buildings oil lamps are still in use, although in many cases either gas or electric lighting is provided. Where gas is used the tendency has been to replace the old pattern gas burner by those

of the modern incandescent type. A great deal has been done in this direction, but a large number of buildings still require to be attended to. Among those stations at which incandescent lighting has been provided during the year may be mentioned Cardiff, Dorchester, Birmingham, Ayr, Weymouth (Hospital), while recommendations for further provisions are put forward from Warley, Royal Park Barracks (London District), Devonport (Military Hospital), &c. In some of the older barracks, *e.g.*, Birr and Mullingar, the defective lighting is said to be due to choking of the pipes and consequent insufficient pressure of gas from long use, and it is doubtful whether any material improvement can be effected without complete replacement. Electric lighting was installed in the barracks at Cork during the year. *United Kingdom.*

Married Quarters.—Probably the relief from overcrowding in married quarters is the most urgent of all sanitary requirements in Barracks at Home. Until recently a single room quarter was the usual allotment to a soldier's family, sometimes irrespective of the number or ages of the children comprising it. We find it stated in a report of the Sanitary Officer, Southern Area, Eastern Command, that "there are many instances of a man and wife and 3 children with only one bedroom and one other room for all purposes," and an instance is quoted at Sheerness, where a man and wife with 6 children were occupying a single room divided by a partition 6 feet high, the inner divisions of which were without proper light and ventilation. Fortunately these are exceptional cases, and although many single-room quarters are still in use the number of occupants is generally limited to a man and his wife, with perhaps one, or at most two, children. Thus, in the reports from the Northern Command, it is stated that the overcrowding of married quarters has been relieved generally by the provision of at least two rooms to all married families, and in the case of the larger families double quarters have been allotted them; while from the Scottish Command it is reported that the accommodation for married families has been greatly improved, and very few single-room married quarters are now in occupation. In Ireland similar action is being taken; at Fermoy and Ballincollig re-appropriation proposals were accepted during the year for the conversion of one-room quarters into half the number of two-room quarters. Generally speaking, everything possible is being done to thin out the married families by re-appropriation and other means, but unfortunately the amount of accommodation in barracks for married families is at present insufficient, and until the construction of new buildings the state of overcrowding in many cases can only be temporarily reduced.

Apart from overcrowding, various sanitary defects in existing married quarters are brought to notice by Specialist Sanitary Officers. These relate chiefly to defects in ventilation of rooms, to want of suitable bathing accommodation, to the faulty situation of latrines in relation to the quarters, and to various other items of lesser importance.

The position of latrines is a matter of considerable importance. Frequently they are placed in detached buildings at long distances (40 to 60 yards) from the dwelling rooms, and, apart from feelings of modesty, the women and children suffer considerable discomfort and hardship in visiting them, more particularly during inclement weather and at night. The absence of suitable bathing and lavatory accommodation necessitates all washing being done in the living rooms, and is another point which requires attention in the interests of health. As a remedy, the provision of suitable sanitary annexes containing bath and lavatory accommodation is required, and, as far as funds will permit, these are being provided.

In this respect a great deal has been done in the Scottish Command where suitable annexes were provided during the year for the married quarters at Stirling, while others are in course of construction at Maryhill and Fort George.

In the reports from Aldershot, reference is made to the unsatisfactory condition of the quarters in the East Cavalry Barracks, where the accommodation for the married families is situated over stables—probably a unique experience. No sculleries are provided, and the water is laid on only to the floor below.

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Owing to the generally unsatisfactory state of the married quarters, it is proposed to devote a considerable sum to the re-construction and re-modelling of these buildings during the forthcoming year. The proposed scheme includes the re-modelling of the married quarter occupied by the troops in the East Cavalry Lines, West Cavalry Lines, South Cavalry Lines, Salamanca, Talavera, and Badajoz Barracks at Aldershot, the re-construction of the married quarters at Birmingham, the enlargement of the quarters at Mount Wise Barracks, Plymouth Sub-district, the provision of annexes for the quarter at Brompton Barracks, Chatham, and Linen Hall Barracks, Dublin, various appropriations to provide married quarters at the Grand Shaft Barracks at Dover, and the construction of quarters for the married families of the Royal Engineer Staff at Lydd, and the garrison of Bere Island, in the Cork District.

Water Supplies.—As a rule, the water supply to Barracks at Home is of excellent quality. It is generally obtained from the mains of the adjoining Municipality, and is sufficient in quantity as well as good in quality. This, however, is not always the case, and as the result of constant analysis, both chemical and bacteriological, it has been found that the quality of municipal supplies cannot invariably be relied on. Among "suspicious" municipal waters brought to notice during the past year may be mentioned those of Devonport, Christchurch, and Aberdeen, where samples on analysis gave unsatisfactory results.

The supply for Devonport is subjected to contamination during transit from the gathering ground, and it appears that the filters in use are insufficient to satisfactorily check the passage of pathogenic organisms; samples collected in October in barracks indicated the presence of fæcal contamination. Since then the water question has been under consideration by the municipal authorities, who have adopted temporary means to remove as far as possible the sources of pollution, pending a more permanent settlement by the enlargement of the filtering plant. Meanwhile, as a precautionary measure, all drinking water used in barracks is being boiled. At Christchurch and Aberdeen, the supply is obtained from their adjoining rivers, which receive sewage from villages and habitations situated at varying points above the municipal intake. At both places samples on analysis indicated fæcal contamination; pending a final settlement of the water difficulty, measures have been adopted to ensure the boiling of all drinking water used in barracks.

Other stations, in addition to the above, have experienced water difficulties. Among these may be mentioned Sheerness and Shoeburyness. Owing partly to the gradual lowering of the water level, and partly to trouble from sand, a shortage of water was threatened at both stations during the summer months. To obviate this danger, costly and important works, with the view of cleaning out the wells, increasing their storage capacity, and renewing the pumping apparatus, are being undertaken. On completion, it is hoped the water difficulty will have been permanently and satisfactorily overcome.

At Dover the storage arrangements for the water supply to the barracks at the Western Heights, are being improved; at Bury St. Edmunds the barrack main was linked up with the municipal supply, thus ensuring a sufficiency of good water for all purposes; at Lincoln a more efficient means of filtration has been adopted.

The water supply at Beverly is liable to contamination, and pending action on the part of the local Corporation, to obtain and provide a better quality of water for the barracks, precautionary measures have been adopted, to boil all drinking water used by the men.

A "Candy's" clarifying filter is about to be provided for Longmoor Camp, where the water is shown to contain a large and rapidly increasing quantity of iron.

The unsatisfactory character of the water supplies of several of the Forts around Plymouth was brought to notice, and pending the institution of some more permanent arrangements, provision has been made for boiling their drinking water.

United Kingdom.

In Ireland shortage of water is threatened at Bere Island and Buttevant, while the conveyance of water over long distances in carts for the garrisons at Fort Camden and Fort Carlisle entails much labour, and is unsatisfactory from a sanitary point of view. At present negotiations are taking place with the District Council of Mallow for the provision of a larger supply of water to Buttevant Barracks, and it is hoped that a satisfactory settlement will shortly be effected. It is proposed to discard the well at present in use, and to obtain water in future from a neighbouring stream, supplied from a large catchment area in the vicinity.

The water at Templemore and Athlone was reported as liable to pollution; in the former case by surface drainage from two farms situated close by, and in the latter by a small drain which discharges sewage into the river at a point above the municipal intake. In both cases the sources of contamination were removed, and the water supply rendered safe.

At Newbridge the old water supply from wells has been abandoned, and a new supply installed from the municipal main. A similar procedure has been carried out at Fort George, where the water is now obtained from municipal sources.

At Glencorse the present water supply is reported as unsatisfactory, and negotiations are on foot to obtain water in future from the Talla Main, which passes close by the camp.

Sewage Disposal.—Installations for the treatment of sewage by biological methods were in operation at the following stations:—

Glencorse, The Curragh, Birr, Tipperary, Lichfield, Weedon, Bordon (2), Longmoor, Deepcut, Blackdown, Ewshott, Tidworth, Bulford, Netheravon, Devizes, Devonport, Okehampton, and Worcester.

The above installations may be divided into two classes:

(1) Those without septic tanks;
(2) Those with septic tanks.

The latter may be subdivided into:

(*a*) Installations in which the tank effluent is directly subjected to land treatment;
(*b*) Installations in which the tank effluent is screened before its final disposal on land or into a stream or river.

Examples of (1) are to be found at the Curragh, Blackdown, and Deepcut. In these the crude sewage is passed through double contact beds before its application to land, and, so far as military requirements are concerned, they have given fair results. The installation at the Curragh is well reported on, while recent reports concerning the installation at Blackdown and Deepcut, though not altogether satisfactory, state that a considerable improvement has taken place in the character of the effluent. The partial failure of this installation is said to be due to the large amount of stable matter contained in the sewage. In order to deal satisfactorily with this difficulty an extra secondary contact bed is being provided for the Deepcut sewage and two tertiary beds are in course of construction for the combined effluent. When these works are completed it is hoped that the resulting effluent will be quite satisfactory.

In regard to the septic tank installations better results have been obtained at the smaller stations, *e.g.*, Devizes, where the volume of sewage is small and its flow comparatively uniform.

The principal difficulties in the management of the large installations have arisen in connection with regulating the flow of sewage through the septic tank, more particularly at garrisons containing an undue proportion of mounted troops. The sudden and temporary increase in the volume of sewage due to the introduction of storm water is found to produce a "scouring" effect within the anærobic chambers which appears not only to materially interfere with bacterial action within the septic tank, but, in addition, causes derangement of the system by clogging the filter beds with the untreated solids held in suspension in the tank effluent. This

United Kingdom.

has happened at the installation at Bordon, where the entire septic tank system is completely out of order, and great difficulty is experienced in obtaining a final effluent of sufficient standard to satisfy the requirements of the Thames Conservancy Board. It has thus been found necessary to exclude storm water as far as possible by providing a separate system of surface drainage. A somewhat similar effect, though in a lesser degree, is caused by the liquid waste from the cleansing of stables, scrubbing of floors, &c., which take place at certain hours of the day in barracks.

At Lichfield, Ewshott and Bulford the septic tank effluent is directly applied to land with satisfactory results. Where sufficient land is available and the condition of the tank effluent is a matter of secondary importance, this system possesses many advantages, but is obviously unsuited for general application. With the exception of Bordon, the septic tank installations have given fairly satisfactory results. In cases where biological treatment has not been satisfactory, the fault can generally be attributed to lack of knowledge and experience on the part of those immediately responsible for their management. Specially trained intelligent men are required for the proper supervision of biological installations, and until recently it has not always been possible to obtain them. Latterly, however, a special body of men have been appointed to the care of these works, and the former objectionable system, by which no permanency of tenure was ensured, has been abolished.

The general supervision of the biological installations has now been placed directly under the charge of the War Department Sanitary Engineer, and it is proposed to earmark a considerable sum in the Annual Estimates of 1907-08 for the purpose of rectifying minor defects in the arrangements of these sewage works.

Camps.—A large number of Militia and Volunteer training camps were held during the summer months throughout the country. As a rule their general state of sanitation was satisfactory, and the conservancy arrangements were well attended to.

The custom of occupying the same ground for prolonged periods during each successive year has led, in many instances, to the provision of certain engineer works of a permanent nature which place these camps on a footing somewhat similar to that of standing camps. These items chiefly include a piped water supply, wood and iron buildings with concreted floors for use as kitchens, wash-houses and latrines, and, to a limited extent, roads in and around the camp areas. The extent to which each camp is equipped in these matters varies directly in proportion to the importance of the camp site and the duration of its occupation. Thus those camps used regularly year after year are placed on a more permanent basis than others occupied for short and irregular intervals only.

As far as funds have permitted, the requirements of the larger and more important camps have been met, but a good deal still remains to be done in this direction.

In order to avoid the occupation of insanitary sites, the principle of inspecting camping grounds before occupation is carried out by Specialist Sanitary Officers. These inspections include a general survey of the sanitary condition of the proposed camp area, together with a careful examination, including analysis, of the water supply.

The principal difficulty in the sanitary administration of camps is generally connected with the methods for the collection and removal of camp refuse, liquid wash material, and night soil.

A variety of carts are supplied by local contractors, but without actually providing War Department property it is difficult to always insist on properly constructed sanitary vehicles being used for these purposes. In Ireland and Scotland, for instance, the local farmer, usually the contractor, is frequently unable to incur the initial outlay necessary for the purchase of suitably constructed sanitary carts, and ordinary country carts or even barrels are used for the removal of camp refuse and latrine pail contents. Viewed from a sanitary standpoint, the present methods are objectionable, and the question as to whether the Contractor shall supply suitable carts

under the terms of his contract, or whether the carts are to be furnished on loan from War Department Store, is at present under consideration. *United Kingdom.*

Manœuvres.—Autumn Manœuvres on a large scale were held in the Aldershot, Irish (Curragh), and Eastern Commands. The health of the troops remained good and the weather conditions were generally favourable during the operations.

At Aldershot the new field sanitary organization was under trial. Its main principle consists in the allotment to regiments, &c., of special sanitary squads charged with the sanitary duties of their respective units when in camp and on the line of march.

Each squad worked under the supervision of a Medical Officer, and consisted of 2 men Royal Army Medical Corps and 1 non-commissioned officer and 8 men of the regiment concerned. The original intention was to place 1 non-commissioned officer and 4 men of the Royal Army Medical Corps with each infantry battalion, but administrative difficulties prevented this being carried out.

The Royal Army Medical Corps personnel took care of the sick, supervised the general sanitary arrangements of the camp, and performed the more specialized work connected with the supply of sterilized drinking water for the troops, while the regimental men carried out the lesser technical duties connected with the conservancy arrangements of their units.

The water supply within the manœuvre area was nominally condemned for drinking purposes, and special arrangements were made for the sterilization of drinking water.

These consisted in the provision of—

(*a*) Army pattern Field Service water-carts fitted with Slack and Brownlow filter candles.

(*b*) Heat exchange apparatus. Griffiths.

(*c*) Chemical tablets—Iodine process.

The filter water-cart and tablets were used with mobile troops, while the heat exchange apparatus were provided at standing camps.

As the result of our trials, the filtration process proved superior to the others for general use in the field, the filter water-cart being reported as satisfactory in every way. Heat exchange gave good results and showed that in Griffiths' invention we possess a portable apparatus for sterilizing water by heat which is well suited for the requirements of standing camps.

The use of Chemical tablets was less successful. The method adopted was based on the sterilization of water by the "iodine" process as originally recommended by Professor Vaillard, a French Army Surgeon.

An important change, however, was made in the technique, and although the actual chemical ingredients remained the same as in the original tablets the quantity in each was considerably increased so that, instead of sterilizing water in small quantities, namely, 1½ pts., an attempt was made to carry out group sterilization by using tablets of 100 gallons size, *i.e.*, tablets, each series of which were capable of sterilizing 100 gallons of water.

The principal objection to "chemical" sterilization of water for troops has been the fact that its success is dependent on individual action, and to carry out the process each man has been obliged to sterilize his own drinking water. In practice it was found that no reliance could be placed on their doing this, and a system of group sterilization was consequently organized by which water in bulk was chemically treated in water-carts and subsequently distributed to the men. It was, however, discovered that the larger-sized tablets did not effect complete sterilization of the increased quantity, and that the water when used for tea imparted an objectionable iodine taste to the liquid.

Arrangements are being made for a more complete trial of the new field sanitary organization by the General Officer Commanding-in-Chief in Ireland during the forthcoming year.

United Kingdom.

Hospitals.—All that has been said in respect of the surroundings and construction of Barracks applies with equal, if not greater, force to Hospital buildings. Many of the Military Hospitals at Home are in a very unsatisfactory condition, and are altogether unfitted for the requirements of the sick. The reports furnished from time to time by the late Advisory Board, Army Medical Services, give detailed descriptions of the state of each. Their perusal is unpleasant reading.

As a result of the Board's statements a scheme was drawn up by the late Army Hospitals and Sanitary Committee for the centralization of military patients from the smaller outlying stations into the larger centrally situated hospitals.

By centralization it was hoped to be able to close the smaller and less important hospital buildings, and by thus effecting a saving in their management to add to the efficiency of the Central Hospitals. It, however, is found that the condition of the proposed central hospitals in the main is such as to unfit them for the purpose, and considerable alterations and improvements are required before the buildings can be rendered suitable for the reception of the increased number of sick.

None of the buildings at present in use can be looked upon as meeting all the modern requirements of hospitals.

The better buildings are at Millbank, London; Colchester; Herbert Hospital, Woolwich; Cambridge and Connaught Hospitals, Aldershot; Royal Victoria Hospital, Netley; and Devonport, in the order named. At Millbank various minor defects in regard to lighting and warming are brought to notice, and the absence of accessory buildings, such as Mortuary, Disinfecting Block, &c., is much felt. The hospital at Netley presents many serious structural errors which require remedy; in addition the drainage is defective.

The accommodation for the members of the Queen Alexandra's Imperial Military Nursing Service at several of the larger stations is inadequate, and Nursing Homes are being provided at Millbank and Cambridge Hospital, Aldershot, while at the Curragh and Devonport the accommodation is to be increased.

The new hospital building for the Portsmouth garrison has been completed, though not yet handed over, while plans for the reconstruction of the Mooltan Lines at Tidworth as a hospital have been approved, and it is understood that the work of reconstruction will shortly be commenced.

Generally speaking, the Irish Hospitals are in a very bad state. The Royal Infirmary, Dublin, has been condemned for the reception and treatment of sick, and an extension of the Arbor Hill Hospital is necessary to to replace the accommodation which would be lost by the evacuation of the Royal Infirmary.

V.—ON THE HEALTH OF THE TROOPS SERVING AT STATIONS IN THE MEDITERRANEAN AREA.

Mediterranean.

The stations situated in and around the Mediterranean Basin form a group which from the fact that they are all subject to identical or closely similar climatic conditions may very conveniently be studied as a whole. The detailed figures for the entire group are given in Table 2. These stations are Gibraltar, Malta, Crete, Cyprus, and Egypt (Cairo and Alexandria). The first four are all islands or practically so, the last, though Continental, is so closely situated to large masses of water that it may be looked on as climatically semi-insular.

Crete.

Of these stations Crete and Cyprus are, as regards the size of their garrisons, of comparatively little importance, and can therefore be conveniently discussed first. The average strength of Crete during 1906 was 843. There were several detachments at the commencement of the year distributed between the posts of Aios Myron, Arkhanes, Kastelli Pediada, and Canea, accommodated in native huts, which though not ideal, helped to reduce the effect of the inclement weather. The main body of the garrison was stationed at Candia however in wooden huts, and also in E.P. tents, on the Venetian Ramparts of that town. During the months of January and May the garrison had to be scattered considerably, in smaller detachments, owing to local elections, but though this naturally entailed a good deal of marching, and of life under semi-service conditions, in respect of shelter available, and other conveniences, no bad effects resulted to the health of the troops. On the whole the health of the garrison must be considered good. The average number of men constantly sick from all causes was only 1·8 per cent. as compared with a ratio for the previous ten years of over 5 per cent. This is about one-half the total inefficiency due to sickness of the previous year, 1905. The main cause of sickness was *Venereal diseases* accounting for about one-sixth of the total inefficiency, but here again the actual figures are not large, less by one-third than the previous year, and by one-half than those for the previous ten. *Malarial fevers* showed a very great fall, giving hardly one-sixth of the inefficiency debited to this cause last year. This may be attributed in the opinion of the local authorities to the anti-malarial measures taken, to a somewhat rainy season, and to the provision of mosquito nets for the guards in town where great danger existed of contracting the disease, probably by convection from a severely infected native population. All the cases were of a mild order. The anti-malarial measures adopted were paraffining of unused wells, brushing down of cement channels, and clearing of tanks. Two cases of *Enteric fever* occurred, contracted it is thought by drinking dirty water while on patrol duty. *Malta fever* showed itself in one man only who had recently arrived from that island. On the whole it may be said that there was a very marked absence of what is usually recognized as preventable disease, and this fact occurring under conditions, not the most favourable as regards housing, &c., must be looked on as decidedly creditable to the medical and other officers concerned.

Cyprus.

Mediterranean.

The garrison of Cyprus is only 106 strong, and of this only about three men were constantly inefficient from sickness. This figure shows a distinct reduction as compared with last year, when nearly twice as many men were constantly under treatment. The decrease seems to have been fairly general throughout all classes of disease, but most especially so in the class of *Malarial fevers*. These gave only about one-sixth the number of admissions, and less than one-half the inefficiency that resulted from this cause last year. There was no *Enteric fever*, and no *Malta fever* admitted to hospital during the year, which may be said to have been a happy one, in that *quâ* disease it has no history. As regards sanitary matters the troops are still housed in wooden huts giving accommodation far in excess of that required by the garrison. These are of course cold in winter and hotter in summer than more substantial buildings would be. The first stone barrack was, however, finished in November, and was much appreciated by its occupants. It is proposed to add one building of this nature every year for the next three years, which will afford sufficient accommodation for the normal garrison. The other sanitary details do not merit special mention.

Egypt.

The British Garrison of Egypt is stationed in Cairo and Alexandria. A regiment of British Infantry is also stationed at Khartoum, but does not come under the command of the General Officer Commanding the Army of Occupation, being at the disposal of the Sirdar of the Egyptian Army. It is with the first-named stations, therefore, that this report deals. The situation of Cairo on the banks of the Nile, and at a level very little above that of high-water mark of the river, is well enough known, and needs no description. The European troops are posted in the barracks at Kasr-el-Nil, the Citadel, and at Abbassiyeh outside the town of Cairo, on the edge of the desert. All these barracks have one common feature, viz., that they were originally built by the Egyptian Government for the occupancy of the Egyptian troops in the time of Ismail Pasha. This is sufficient to prove that they are not, especially considering the date of their construction, suitable according to present ideas for the accommodation of British troops. The peculiar position of the British Force in Egypt necessarily entails many difficulties in the way of erecting good permanent barracks, but it is difficult to believe that in a country whose financial prosperity is, and has of late years been so great, more might not have been done for the comfort and housing of the Army on which the existence and continuance of that prosperity depends. As regards Kasr-el-Nil, a project is on foot to hand over these barracks to the Khedive's Government, and build and find sufficient accommodation for the troops so expropriated at Abbassiyeh, well to the north-east of Cairo. That this will cause a great addition to the comfort and well-being of the troops so transferred there can be no doubt, but this change will take at least three years to effect. At these barracks, situated on the very edge of the Nile, all the waste is removed by drains which, owing to the level of the ground, are laid with insufficient fall, and are therefore being constantly silted up. The effluent from these drains is received into soakage pits, which are merely unlined cesspits in the barrack square. These pits, receiving as they do a large quantity of soapy water, rapidly get filled up, the sides and bottom becoming more and more impervious to soakage, and the whole surrounding subsoil water-logged as time goes on. New ones have from time to time to be made; this process cannot, however, be repeated indefinitely. The barracks in the Citadel of Cairo have the advantage of one of the most magnificent sites in the world, and their elevation makes their drainage simple enough. They are, however, old and dirty, and their arrangement is such

Mediterranean.

that it is difficult to supervise their conservancy properly. Some of the married quarters here are particularly bad. These barracks, like all those in Cairo, are infested with bugs, which are harboured in chinks in the old woodwork and walls. At Abbassiyeh the conditions are on the whole better, structural improvements of various kinds having been lately introduced. There are some married quarters, which are, however, worse than anything anywhere else. To place a man, his wife, and child in one room with only one window and one door would be barbarous in an English climate, if only from questions of modesty and decency. In a climate like that of Cairo in the summer it is positively dangerous as well. English girls of a self-respecting class, such as it is desired to get into the married establishment of the Army, will not willingly expose themselves to conditions where decency and cleanliness are so difficult to preserve. Some of the married quarters at Abbassiyeh and Kasr-el-Nil, the so-called Slade and Talbot blocks, are as good as any in the service. Those just referred to are as bad as can be conceived. There is no doubt that the most pressing sanitary need of Cairo is accommodation for the entire married families on the scale of the Slade and Talbot blocks already referred to. The state of affairs above mentioned is very largely due to the fact that for political reasons the garrison of Cairo had to be raised to a greater strength than had been contemplated as necessary of late years. The question of any enlargement of the married families accommodation hangs, therefore, mainly on political issues, and the possibility of the garrison being in future reduced to its former strength. The surroundings of the barracks in Cairo are bad. The Citadel by its great elevation escapes most, if not all, the evils incidental to occupying a position in the centre of a large Oriental town. Of the rest of Cairo it may be stated briefly that it is sewage logged. The short statement of the state of affairs in this wealthy town given in the Army Medical Department Report for 1905 is still true. It is hoped that within the next five years the whole of Cairo will be sewered, but the task is a gigantic one, and beset with many difficulties. The flooring of all barracks, but especially of those in the Citadel and at Abbassiyeh, is bad. It is partly of wood and partly of asphalte. The latter is soft, and dents rapidly under the pressure of the bed legs. Water used for washing is therefore hard to get rid of. Tiles laid in parallel rows to take the pressure of the bed legs have been found of great use in obviating this defect. As regards the health of the troops in Cairo, this has been fair. The barracks at Alexandria are on the whole better than those at Cairo, and as regards those at Mustapha little fault can be found. The flooring is said to be bad at the Outer Barracks at Ras-el-Tin, being formed of gaping planks, which must inevitably allow of pollution of the subjacent ground. At Kom-el-Dik bugs are particularly complained of. A plumber's blow pipe lamp has been found the only effective means of getting rid of these pests.

As regards the health of the troops in Egypt, the total inefficiency from sickness was about ·43 per cent. worse this year than in 1905, though slightly lower than that for the average for the previous ten years, the improvement being equivalent to about one-thirteenth of the total. There was a distinct increase in the inefficiency from *Malarial fevers*, the total being two and a-half times as great as in 1905, and about twice that of the preceding decennium. This is attributed to the fact of the arrival of a portion of the King's Own Scottish Borderers from Aden, where, and probably also in Burma, their previous station, they had already contracted the disease. *Dysentery* was decidedly worse, the number of men constantly sick from this disease being nearly three times as high as during 1905. The majority of these cases occurred at Abbassiyeh, and were attributed by the Sanitary Officer to several causes, of which, probably, the most important were the proximity of the cookhouses to the latrines, and the abundance of flies. Such a theory completely falls in with Indian experience of this disease. The fact, however, that the barracks are unenclosed, and that many unauthorized natives make use of them as a thoroughfare may have been a contributory factor. The bad flooring already referred to is considered by the Sanitary Officer to have helped in causing this disease. *Enteric fever* was slightly more prevalent than in 1905, the ratios being as 7 to 6 per 1,000 for admissions. On

Mediterranean.

the other hand, when compared with a decennial ratio of 20, this fact loses much of its significance. By far the largest number of admissions occurred in Cairo, this station contributing 28 cases out of the 35. It is considered that most of the cases were contracted out of barracks, and in a country where this disease is endemic among the general population, this is at least a plausible suggestion. It is noted, however, that 4 cases were contracted in Hospital. On this point it may be noted that the Citadel Hospital, where this unfortunate accident occurred, is a building as little suited for the scientific treatment of possibly communicable disease as can well be imagined. The building itself was originally a palace. The wards are lofty and spacious, and accommodate far more patients than can conveniently be treated in them, if diseases which demand isolation are to be properly isolated. The loftiness of the walls precludes their being properly cleaned, while the ornamentation, which may be appropriate in a palace, lends itself to a easy and rapid accumulation of dirt most undesirable in a hospital. The question of the re-modelling or re-building of this hospital on the same or another site is one which will have to be faced at no very distant date. It is only less urgent a matter than the provision of proper married quarters for the married families.

Venereal diseases were slightly less prevalent this year than in 1905, and even more so than in the preceding decade. Compared with this latter period, the invaliding from this cause during 1906 was only about one-half the average. No invalids were finally discharged the Army for *Syphilis*, a very satisfactory state of affairs. No other disease of a serious nature occurred to a sufficient extent to merit special remark, but reference may be made to a mild outbreak of *Dengue* at Cairo which caused 29 admissions.

GIBRALTAR.

The health of the troops in Gibraltar was slightly better than that during the previous year, the total disability being about one-ninth less, though the admissions and deaths were slightly higher. The principal cause of inefficiency was *Venereal disease* which accounted for rather more than half the total (14 out of 25 per 1,000 roughly). These diseases were, however, rather less prevalent this year than last. The general decrease in ineffectiveness must be taken as due to general causes, not to any particular one. As regards preventive diseases these were unimportant, *influenza* alone of the specific ailments showing a high number of admissions. *Enteric fever* accounted for 15 admissions, or about 3 per 1,000 of the total garrison. The details of this outbreak are given in the following extract from the Sanitary Officer's report:—

As regards *Malta* or *Mediterranean fever*, the following interesting remarks from the Sanitary Officer's Report may be reproduced:—

"It appears probable that the rapid disappearance of *Mediterranean fever* from Gibraltar, which commenced in 1885, was intimately associated with the exodus of infected goats from the Rock. Improved sanitary conditions, especially the disconnection of waste-pipes and house-drains from sewers, may have played a part in causing the decrease of fever, but as the same sanitary improvements have been carried out in Malta, without any corresponding decline of Mediterranean fever, it is fair to assume that their effect was insignificant compared with that produced by the removal of infected goats."

The full text of the paper will be found in Vol. V. of the Reports of the Mediterranean Fever Commission, published by the Royal Society. Experiments have also been made to ascertain the conditions under which "sewage microbes" may be found in the air of sewers. These experiments and the conclusions deduced from them will be found reported in the summary for 1907.

Enteric Fever.—Fifteen cases of enteric fever were reported during the year. They were uniformly distributed, there being no special incidence in any month or season. Water supply, milk supply, visits to special places in Gibraltar and Spain, food supply, especially as regards unwashed fruit, shell fish, ice creams, possible contact with convalescent cases, sanitary defects in quarters, were investigated in each case, but no definite source of infection could be traced. The first case occurred in the Royal Garrison Artillery Barracks, Europa; the next three cases developed in the Munster Barracks at Windmill Hill, and, as only six days intervened between the first and third cases, they were probably infected from some common source. The only suspicious circumstance was that a case of enteric fever had been discharged from hospital about three weeks before the development of these cases, and on his discharge lived in the same barracks, but occupied a different room. It was thought that the man might be suffering from "bacilluria," and that possibly the three other cases were infected through the trough latrines. The urine of the suspected man was repeatedly examined, but no signs of the *B. typhosus* were discovered. The next case occurred in the Hargrave Barracks, occupied by the Royal Engineers, about a fortnight after the Munster cases were reported. No association with these cases could be discovered; the barracks are separated by a distance of nearly two miles. The next case was the wife of a serjeant in the Royal Garrison Artillery, living in the Moorish Castle. The infection was attributed to the consumption of large quantities of unwashed fruit, brought into Gibraltar from the Spanish town of Linea. The eighth case occurred twelve days later in the Fire Station at South Barracks, the ninth case in the Culfe Married Quarters, and the tenth case at the North Front. All the cases were essentially sporadic, only one case usually occurring in each unit. *Mediterranean.*

Slaughter-House.—The slaughter-house used by the contractor supplying meat to the troops is situated at the south end of the civil slaughter-house. Last year the walls were rendered impervious, and a floor made of blue Staffordshire bricks was laid down. A new drain connected to the Sanitary Commissioners' sewer was also constructed, the washings from the floor of the slaughter-house being made to discharge over gully-traps connected with the foul drain.

Blood resulting from slaughtering operations is not collected for use in manufacturing processes, and used to be discharged into the old drain which terminated on the eastern beach. In this way a very offensive foreshore was created, and, mainly with the idea of obviating this nuisance, the drainage system was laid down. Unfortunately, the sewage in the Sanitary Commissioners' sewers at the North Front has to be raised by Shone's ejectors to the level of the main sewer on the Line Wall, and it was evident that if pure blood was allowed to enter the North Front sewer, masses of coagulated blood might obstruct the ejector. To get over this difficulty, instructions were given to the contractor that all blood must be collected in impervious receptacles, and the serum alone allowed to enter the drain. As an additional precaution, the official grating, with bars three-eighths of an inch apart, was fixed by cement to the mouth of the gully-trap, so that the workmen could not raise it and place coagulated blood in the trap. The coagulum remaining after the serum had been poured off was ordered to be destroyed in the destructors. These orders have been faithfully carried out, and no obstruction has occurred in the sewer as a result of operations carried on in the slaughter-house.

A small well-ventilated room, in which carcases can be hung during the process of "setting," has been built on to the east side of the slaughter-house.

Small-pox was prevalent amongst the civil population, but no cases were reported amongst the troops of the garrison. As regards general diseases, no comment seems to be called for as there was no special prevalence in any particular class. The water supply of a place like Gibraltar must always be a difficulty. A detailed account of this was given in the "Army Medical Department Report for 1905," and as regards the essential points nothing remains to be said. Drinking water is, and must continue to be collected

Mediterranean.

from roofs and other impermeable areas. It only remains to protect it from pollution as far as possible during collection, which is probably impossible, strictly speaking, and during storage which, though difficult, should be quite practicable. As regards the former, Fortress Orders require the cleansing of all roofs, gutters, and gutter pipes during the period before the annual rains, *i.e.*, the 15th September. "The cleansing will be repeated after any period without rain exceeding three weeks, after the first rainfall." The first rainfall is to be allowed to run to waste. Special measures are also taken to prevent pollution during storage whether in overground or underground tanks. Such pollution usually occurs either through over-flow pipes, through man-holes, especially when their edges are flush with the roof of the tank, through the use of non-impervious roofing for the tanks, and through cracks in the walls and floors of the tanks due to settlements in the surrounding earth. The latter may be guarded against to a considerable extent by carrying any sewage, where it has to pass in the vicinity of an underground tank, in heavy iron drain pipes, joined up with molten lead. Pollution may also occur by workmen conveying dirt into the tank on their boots, and to meet this, canvas shoes are issued to all men engaged in this occupation. It is doubtful whether the object aimed at would not be more thoroughly met by the issue of long rubber boots, *e.g.*, sea boots, which could be washed before and after use. The use of an absorbent material such as canvas is *prima facie* not free from objection.

Water for flushing purposes is obtained from wells at the North Front, and pumped by the Sanitary Commissioners to suitably situated cisterns. This water is at all times, but particularly in summer, very saline, and has a very destructive effect on sanitary fittings.

Barrack Refuse.—The method of storing barrack refuse prior to removal by the Sanitary Commissioners is not altogether satisfactory. The ashes from fire-places and wet refuse from kitchens and the men's tables are both deposited in the official iron dust-bin placed on a concrete surface, the result being that foul water is always oozing from the cleaning aperture in the front of the bin. The official dust-bin should be reserved entirely for dry rubbish such as ashes, and a separate small movable covered dust-bin should be supplied for the reception of wet refuse from kitchens and tables.

The refuse removed from the barracks in the South Division is thrown into the sea at Deadman's Hole, Europa. This method of disposal has not given rise to any serious nuisance, and it saves cartage of offensive material through the narrow streets of the town. In the North division the refuse is taken to the Destructor at the North Front. This installation is the property of the Sanitary Commissioners, and representations have been made to them as to the incompleteness of the combustion of the materials brought for destruction. When an easterly wind is blowing, it is no uncommon thing to find the North Front Hutments enveloped in smoke, and partially burnt particles are sometimes deposited on the water collecting areas in the immediate vicinity of the Destructor. In the Estimates for 1907 the Sanitary Commissioners have made provision for the erection of a modern Horsfall installation.

Bathing of the Soldier.—In last year's Report a description was given of the shower-baths erected for the use of the soldier on Windmill Hill. Continued use of the installation has shown that galvanized iron fittings are not suitable for use with more or less saline water. The metal is gradually corroded, and the apertures in the sparge pipe becomes obstructed. Gun-metal fittings should be used where such water must be employed as a means of ablution.

During the year under review shower-baths have been erected at Moorish Castle for non commissioned officers and men. They have proved a great boon, especially during the hot weather.

When funds are available, it is hoped that arrangements will be made to supply hot and cold water to the shower-baths, so that they may be used freely during the winter months. The simplest method of providing hot water would be to place a worm or coil inside the sanitary tank. The coil

would contain fresh water, and form an independent circulation connected to a boiler. The water heated in the tank by means of the coil would be supplied by a separate pipe to the sparge pipe, and by means of taps on the hot and cold supply the soldier could easily adjust the water issuing from the sparge pipe to any desired temperature. *Mediterranean.*

The Sanitary Circumstances of the Rock above the Unclimbable Fence, and the Admiralty, Detached, and Commercial Moles.

The sanitary questions which arise during mobilization may be considered under the following heads:—

(*a*) Removal of dejecta, urine, and waste water from ablution.

In considering this question it should be noted that the conditions of occupation have completely changed during this last few years owing to the erection of new batteries above the unclimable fence. At the present time, some 2,000 men are required to man the various batteries and posts, and at least 10,000 gallons of foul fluids have to be removed daily during mobilization. This amount of foul water cannot be applied with safety to the surface of the ground for the following reasons:—

(*a*) The soil covering the rock is very limited, being only a few inches thick in many places.

(*b*) The inclination of the strata is towards the town.

(*c*) The Rock is extensively fissured.

(*d*) Large reservoirs have been constructed in the interior of the Rock by the Sanitary Commissioners, the Admiralty, and the Royal Engineers for the reception of drinking water collected from prepared surfaces on the sides of the Rock. None of the roofs of these reservoirs have been made watertight, and a portion of the water in each reservoir is obtained through fissures in the roof.

It being granted that waste material cannot be dealt with by nature's methods, the best method of removal has been a matter for serious consideration.

The ideal method of removal would be a complete water-carriage system, but it necessitates that sanitary water shall be supplied to and that drains shall be laid from every battery and post. The water-carriage system can easily be applied to many of the lower batteries, such as Jew's Cemetery, Levant, Edward VII, Genista and Buffaderos', as foul drains are available in the immediate neighbourhood and a supply of sanitary water can be obtained. It has been decided to install a water-carriage system for Jews' Cemetery and Levant batteries, and works are now in progress. In the case of the batteries on the North Ridge, the water resulting from ablution, foul water from cook-houses and urine will be carried into a cemented pit. From the pit the fluids will be carried in barrels to the nearest drain head. It was suggested to employ vacuum carts for the removal of the contents of the pits, but the gradients in many parts are so steep that much wear and tear on the road would have resulted. Consequently it has been decided to employ barrels holding five gallons, four of which can be carried by one donkey. In the case of Rock Battery and Signal Hill, the barrels will be carried to the drain head opposite Middle Hill Battery, a comparatively short journey. From the lower batteries such as Princess Royal and Princess Caroline the barrels will be conveyed to the drain head at Bruce's Farm. Stall urinals made of glazed earthenware have been erected in convenient places for all batteries and the foul drains from these urinals terminate in the pits just mentioned, which will be emptied entirely by gravitation, the barrels being placed on a cemented surface underneath a draw-off tap level

Sanitary arrangements.

with the bottom of the pit. For the reception of faecal material, dry-earth closets will be employed, and the contents of the buckets will be destroyed in Horsfall's cupola furnaces, one having been erected opposite Middle Hill for the use of the Ridge and another on Willis' Road for the lower batteries. The capabilities of the Cupola furnaces were tested during last manœuvres and also by a board of officers. It was found that the contents of the buckets could be destroyed, but when the faecal material was very wet the process of combustion was somewhat lengthy. A drying hearth attached to the furnace would have expedited matters considerably. Under the present structural arrangements it is necessary to use coal when commencing operations and to feed dry refuse between the application of each bucket. Working in this way, the whole of the contents of the buckets in the earth closets were destroyed during last manœuvres.

In the South Division it is intended to employ similar arrangements to those just described, for the Ridge batteries such as Spur, O'Haran, and Lord Airey. Unfortunately there is no convenient drain head immediately adjacent to this group of batteries, and the barrels will have to be carried to the drain head at the level of Jews' Cemetery battery. This will be a serious undertaking, and the Commanding Royal Engineer, South, has suggested dealing with the ablution water by sub-irrigation, only permitting urine and foul water from the cookhouses to enter the cemented pits. This is not a satisfactory solution of the problem, though a great improvement on the old state of things when practically all fluids were cast on the surface of the ground.

It would be better to construct a 4-inch iron pipe on the surface of the ground from the level of Spur Battery down to the Windmill Hill foul drainage system. The pits constructed in connection with the Ridge batteries and Haynes Cave, could easily be connected up to this drain, the cost of which would soon be repaved by the annual recurrent charge for barrel cartage. The drain mentioned would give to the South Division the advantages which the drain from Nursery Hut, already in existence, give to the North Division.

In next manœuvres it is hoped to employ sawdust instead of dry earth for covering faecal material. The contents of the buckets should then be disposed with greater facility.

Method of removal in the Admiralty, Detached and Commercial Moles.—On these moles a water-carriage system has been provided, sea-water being readily available for flushing. Unfortunately trough latrines have been installed on all the moles for the use of the men.

In the case of the Admiralty Mole trough latrines are peculiarly objectionable, as they are placed in a confined space below the level of the mole, and are only separated from the cookhouse by a brick wall. The trough latrines should be removed from this mole, and wash-down w.c.'s provided as soon as possible. In the case of the Commercial and Detached Moles the latrines are on the same level as the surface of the moles, and an adequate flush of air can be obtained. As plenty of sea-water is available for flushing, there is no reason why faecal material should be allowed to remain in the troughs for hours as at present. When funds are available it would be well to replace the trough latrines by wash-down w.c.'s.

B. Ventilation of Shelters.—The space for each man being only 250 cubic feet, adequate ventilation without creating draughts is almost impossible. Even with the best arrangements there must be an excess of CO_2 present in the air, as it cannot be renewed more than three or four times per hour. In many of the old shelters, notably at Rock Gun and Middle Hill, the ventilation is extremely defective. Outlet ventilating shafts carried through the bomb-proof roof of each room have not been provided. It would be a very costly work to carry suitable outlets through the roofs now, but foul air from the back of the shelters might be removed by providing extraction
fts carried along the roof and ending in a cowl placed above the top of
helter. Each shaft should have a trumpet-shaped mouth at the back

On the Detached Mole the ventilation of the shelter is defective from a similar cause. On the Commercial Mole the ventilation might easily be improved by raising the sky-light and providing ventilating apertures at the sides. *Mediterranean.*

C. Protection of Shelters from Damp.—In the new shelters lately erected dampness has been prevented by providing a ventilating dry area all round the shelter, and by placing a layer of asphalte in the roof. Many of the old shelters are damp owing to the absence of the dry area and damp-proof lining in the roof.

D. Supply of Drinking Water.—A large catchment area and two large reservoirs hewn out of the rock were constructed last year, and nearly 2,000,000 gallons of water were collected. It was proposed to pass this water through a small sand filter situated in a tunnel close to the reservoirs. On examining the water bacteriologically, however, no signs of pollution were detected. There were only 40 microbes per c.c. present after 72 hours' incubation, and *B. coli* was absent from 50 c.c. Consequently it was decided to abandon the sand filter, as it would serve no useful purpose. Levant, Jews' Cemetery, Windmill Hill, and Europa batteries have been connected up with the reservoirs at Mediterranean Steps.

Two bomb-proof tanks, each holding 1,000,000 gallons, and a catchment area are to be constructed near Spy Glass Battery.

A new catchment area of 50,000 square feet and a bomb-proof tank to hold 350,000 gallons are to be constructed between Rock Gun and Middle Hill. The water collected will be available for most of the batteries in the North District.

E. Cookhouses.—These are now removed as far as possible from the latrines. The floors of many of them are not quite satisfactory; wooden blocks set in asphalte so as to allow no spaces between the joints should be provided.

F. Drying Rooms.—When batteries are manned during the "rains" the men are constantly wet through, and some provision for drying their clothes is required.

MALTA.

The medical history of Malta is, and has always been, the history of the so-called *Malta* or *Mediterranean fever*. That this latter name is almost certainly a misnomer is seen from the fact that in other stations in the Mediterranean basin this disease has almost entirely disappeared. In Gibraltar, for instance, this disease used to be called "rock fever," but the remarks in the report on that station show how little this appellation was justified.

It is, therefore, most gratifying to be able to report that the year 1906 probably marks the close of the enormous amount of sickness and invaliding due in the past to this disease.

Up to the middle of 1906, which marks the new era, the garrison of Malta lost annually the services of some 650 soldiers and sailors for a period of 120 days each, making a total of some 80,000 days of illness, and, as it was found necessary to invalid most of these men to England, the pecuniary loss to the State was considerable. Another noteworthy fact about this fever was that it attacked the officers more frequently than the men; in fact, the risk to the officer was three times as great as to the private, and reached the alarming ratio of 131·5 per 1,000. Hence Malta was looked on as one of the most unhealthy and dangerous of foreign stations.

Since July, 1906, when the new preventive measures were brought into use, this has all changed, and, in fact, *Malta fever* may be said to have practically disappeared from the garrison.

Mediterranean.

What are these preventive measures, and how has this been brought about?

In 1904 the Royal Society, at the request of the Admiralty and War Office, undertook to investigate the causation of *Malta fever*, and sent out a small Commission to Malta for this purpose. This Commission, which consisted mainly of Army and Naval Medical Officers, only completed its work in 1906. It is unnecessary to go into the details of the three years' work, suffice it to say that every likely line of investigation was followed to discover how man becomes infected by this fever. In 1887 an Army Medical Officer had discovered that *Malta fever* is caused by the entrance into the body of a minute bacterial organism called the *Micrococcus melitensis*. This microbe was studied from every point of view, but with little success, until a discovery was made which cleared up the mystery. This was the remarkable fact that the goats in Malta are susceptible to this disease, and act, as it were, as a reservoir of the virus. In truth, it is probable that *Malta fever* is primarily a disease of goats, and that man is infected by coming in contact with the goat, not the goat with man. The goat is very much in evidence in Malta (there being some 20,000 of them), and supplies practically all the milk used. It was discovered by the Commission that half of these animals were affected by *Malta fever*, and that one-tenth were constantly passing the *Micrococcus melitensis* in their milk. Curiously, the goats show no outer signs of the disease, but, possibly, continue for years to secrete milk containing the poison.

It is evident, then, that to banish *Malta fever* from our sailors and soldiers stationed at Malta, all that is required is to banish goats' milk from their dietary. This was done in June, 1906, with the result that the cases of *Malta fever* dropped to one-tenth of what would have been their normal number. There is, therefore, reasonable hope that *Malta fever* will now disappear from the garrison in Malta, and some 80,000 days of illness be blotted out from the yearly records of the Army and Navy.

If these good results continue, this investigation will stand out as one of the most notable examples of successful work in the prevention of disease, and will clearly show the economy of spending a few thousands of pounds on the thorough investigation of a disease. The research occupied some three years, and from first to last employed some twelve officers and men, but the outlay in time and money is as nothing to the result achieved.

Apart from *Malta fever*, the chief causes of admission to hospital were "*Other Continued Fevers*" and "*Venereal Disease.*" The former, which accounted for over 500 admissions, were all of a trivial nature, and none of those admitted under this heading subsequently developed *Malta fever.* The triviality of these cases, mostly due in all probability to exposure to the sun or dietetic imprudence, is shown by the fact that the average number constantly under treatment from this cause amounted to only about ·2 per cent. of the garrison, in spite of the somewhat large number of admissions. The incidence of *Venereal Disease* was somewhat heavy, ·8 per cent. of the garrison being constantly in hospital suffering from this form of disease. A special Commission was appointed by the Governor to inquire into the question of the alleged increase of Venereal Disease, and this Commission has reported to Government, which has decided, after a consideration of the recommendations, to adopt certain of their suggestions, which it is hoped will have the effect of considerably checking the disease. *Enteric fever* accounted for only 14 admissions to hospital, a marked improvement both when we consider the ratios for the previous year three times as much, and those for the previous decade more than twice as much. This improvement is probably due to the general "setting of the house in order" in a sanitary sense, which has resulted from the work of the Malta Fever Commission. Diseases of the *Digestive System* caused a rather high ratio of admission, but these were mostly of a trivial nature, there being no deaths from any disease of this class. As regards general sanitation apart from the general question of the fight against *Malta fever* already dealt with, the question of Drainage, Water Supply, and care of Latrines may be touched on.

Mediterranean.

***General Remarks*, 1906.**– The drainage, both Civil and Military, has extended considerably, but there yet remain in barracks many dry-earth latrines which it is hoped will be done away with at an early date. In the past these dry-earth latrines have been under suspicion as a source of Enteric fever among the troops.

The flushing arrangements have been improved, the quantity of flushing water available having been largely increased. The Civil Government Main Sewers now have 500,000 gallons of sea-water flushed through them daily, an increase of 135,000 gallons over last year. Formerly much complaint was made of the smells emanating from the ventilating shafts, and many were closed in consequence. All have now been opened, and this, together with the increased daily flush, has lessened the nuisance both at the ventilating shafts and also at the drain outfall at San Rocco. The latter, however, is still occasionally complained of by those living in the immediate neighbourhood.

At Kemmana Hill a large tank for the storage of pumped sea-water is in process of construction, which, when completed, should furnish ample flushing water for the whole Island. It is anticipated, by permitting the inhabitants to obtain this water at a nominal cost, that extensive use will be made of it for flushing the water-closets in the drained areas, where now actual flushing is largely done by hand carriage. Storage tanks have been constructed and new galleries have been bored for the ensuring of a sufficiency of first-class water during long periods of drought, so that the chance of water scarcity in future dry seasons is reduced to a minimum with an ordinary annual rainfall.

Drinking Water.—For the troops the supply of drinking water during the year has been ample and good. Tank water (or what is often called well water, but which is really stored rain-water from the roofs) is nowhere in use for the troops.

Milk has been forbidden in all barracks, and tinned milk substituted. Coincident with this abolition of fresh milk, there has been a notable improvement in the health of the troops, to which no doubt it contributed.

Conservancy and Cure of Latrines have received much more attention from the troops themselves, who certainly appear to be recognizing the necessity for rigid sanitary measures, if they are to be kept healthy.

When cases of Mediterranean or Enteric Fevers have occurred among the troops, the quarter or barrack room has been evacuated, disinfected, and re-colour washed, and all bedding, clothing, &c., rigorously disinfected.

Owing to reduction of the Garrison, undesirable barracks, and barrack room have been vacated, and more cubic space has been allotted to each individual throughout the Command.

A combination of the above, together with other sanitary measures, have contributed to the production of an unusually healthy year.

VI.—ON THE HEALTH OF THE TROOPS SERVING IN THE SOUTH AFRICAN COMMAND.

Sickness and Mortality.

South Africa. The health of the troops during the year under review has been exceptionally good.

When compared with 1905, the admission, death, invaliding, and constantly sick rates, as well as the average sick time to each soldier, are materially less, although the average duration of each case in hospital is slightly greater than that recorded in the previous year (1905). The latter is accounted for by the further extension of the system of treating mild cases in barracks, and retaining only the more serious for Hospital treatment.

The actual reductions in figures amount to 50 in the admission rate, over 1 in the death and constantly sick rates, and over 3 per 1,000 in the numbers finally discharged from the service.

In other words, if we accept the average strength of the South African garrison as 18,000, the effect of this reduction is shown in a saving of 75 men (21 by lessened mortality and 54 through invaliding), who would otherwise have been lost to the Army under the conditions of 1905. Furthermore, if the figures for 1906 be compared with the average ratios of the last four years, 1902-1905, we find a still greater reduction in the admissions, deaths, invaliding, and constantly sick. Had the average conditions of the quadrennial period been continued, the estimated loss to the Army during 1906 would have been 343 men (141 by deaths and 202 through invaliding), instead of 210 as actually incurred. The figures for 1906 are the more gratifying as they have followed a period of continuous and steady decline, and now South Africa, in point of health, occupies one of the foremost positions among our garrisons abroad.

Examination shows that the decline in the general admission rate has been chiefly affected by the following diseases:—Influenza, Enteric Fever, Dysentery, Venereal Diseases, Debility, Diseases of the Nervous System, and Local Injuries; while the fall in mortality is principally attributable to a decrease in the number of deaths from Influenza and Local Injuries. On the other hand, a reduced invaliding rate is given for Enteric Fever, Dysentery, Tubercle of Lung, Venereal Diseases, Affections of the Nervous System, and Local Injuries.

Thus it will be seen that, apart from Local Injuries and Diseases of the Nervous System, the improvement in the general health of the troops has been brought about almost entirely by a reduction in the incidence of those diseases which are generally recognized as due to preventable causes.

The following table shows the admissions and mortality at each *South Afric* station :—

Districts.	Stations.	Average Annual Strength.	Admissions.	Deaths.	Ratio per 1,000 of Strength.	
					Admissions.	Deaths.
Transvaal ..	Pretoria	3,337	1,199	26	359·3	7·79
	Potchefstroom ..	1,818	802	6	441·1	3·30
	Standerton ..	1,540	562	3	364·9	1·95
	Middelburg ..	1,480	571	6	386·0	4·05
	Barberton ..	235	81	—	344·7	—
Orange River Colony and Natal.	Bloemfontein ..	3,479	1,753	10	503·9	2·87
	Harrismith ..	1,590	732	5	460·4	3·15
	Maritzburg ..	705	243	1	344·7	1·42
Cape Colony ..	Wynberg ..	1,520	815	6	536·2	3·95
	Middelburg ..	2,296	842	12	366·7	5·23
Totals		18,000	7,600	75	422·2	4·17

In point of health Barberton occupies the premier position, followed by Maritzburg, while in so far as admissions alone are concerned Bloemfontein and Wynberg furnish the most unhealthy records within the Command.

The exceptionally high mortality at Pretoria is principally the result of a severe outbreak of *Enteric Fever*, and of a less severe epidemic of *Pneumonia*, 11 deaths being caused by the former and 5 by the latter disease. The high admission rate at Bloemfontein was due to the large number of cases of *Venereal disease* admitted to hospital, and to the unusual prevalence of *Tonsillitis* among the garrison.

On comparing the statistics of the various arms of the service (*vide* ABSTRACT XX), it will be noticed that among the larger units the health of the Mounted Infantry has been exceptionally good, the mortality, invaliding and constantly sick rates being less in this branch than any other. The Royal Engineers are next in order of invaliding and constantly sick rates, but the mortality in this corps has been roughly twice that in any other branch of the Service, and seven times that in the Mounted Infantry. The admission, invaliding, constantly sick and death rates approximate each other in the Cavalry, Artillery and Infantry, excepting that the last shows a relatively high invaliding rate. Of the smaller units the Army Veterinary Corps presents a particularly unhealthy record.

Among individual Regiments and Batteries the following furnish the best records of health :—85th Battery Royal Field Artillery, at Harrismith, 1st Battalion Royal Garrison Regiment, at Maritzburg, "N"

South Africa. and "S" Battery Royal Horse Artillery, at Pretoria (these two batteries were in South Africa for a few days only, having left for India on 19.1.06), 3rd Battalion Royal Fusiliers, at Middelburg, the 89th Battery Royal Field Artillery, at Potchefstroom, 5th Battalion Mounted Infantry, at Middelburg, Transvaal, 83rd Battery Royal Field Artillery, at Standerton, and "W" Battery Royal Horse Artillery, at Pretoria.

The 3rd Battalion Royal Fusiliers maintained a high state of efficiency and seem to have enjoyed exceptional health during the year.

On the other hand, large non-effective figures are given by all the Batteries at Bloemfontein (10th, 26th, 76th, 81st, 82nd and 92nd), 9th Lancers, at Potchefstroom, 4th Dragoon Guards, at Middelburg, Cape Colony, 2nd Battalion Leinster Regiment, at Middelburg, Transvaal, 1st Battalion Duke of Cornwall's Light Infantry, at Wynberg, and 3rd Battalion Northumberland Fusiliers, at Bloemfontein. Of these the 76th Battery Royal Field Artillery had a higher admission, constantly sick and invaliding rate, than any single unit in South Africa. The excessive invaliding in the 76th, 81st and 82nd Batteries Royal Field Artillery, and 2nd Battalion Leinster Regiment was connected with the departure of these units for India and Mauritius respectively, and is probably due to the "weeding out" process which occurs on the transfer of units from one Command to another, particularly where the change is from a healthy to an unhealthy station as in the above-quoted instances.

The excessive prevalence of *Malaria* is largely responsible for the high admission rate in the 9th Lancers, a Regiment which had lately arrived from India in a Malaria-stricken condition, while the undue mortality (6 deaths) in the 4th Dragoon Guards was the result of accidental causes.

In the following tables will be seen the health statistics of the troops arranged according to the ages of the men and the length of service in the Command:—

Age.	Strength.	Admissions.	Deaths.	Invaliding.	Ratio per 1,000 of Strength.		
					Admissions.	Deaths.	Invaliding.
Under 20 years ..	1,636	745	4	22	455·4	2·44	13·45
From 20 to 25 years	8,462	4,208	27	108	497·3	3·19	12·76
„ 25 „ 30 „	5,286	2,000	23	62	378·4	4·35	11·73
„ 30 „ 35 „	1,830	430	11	25	235·0	6·01	13·66
„ 35 „ 40 „	643	161	8	19	250·4	12·44	29·55
40 years and upwards	143	56	2	8	391·6	13·99	55·94
Total ..	18,000	7,600	75	*244	422·2	4·28	13·55

* Including 7 invalids discharged in the Command.

Service.	Strength.	Admissions.	Deaths.	Invaliding.	Ratio per 1,000 of Strength.		
					Admissions.	Deaths.	Invaliding.
Under 1 year ..	6,731	3,363	25	96	499·6	3·71	14·26
1 to 2 years.. ..	5,852	1,768	13	61	302·1	2·22	10·42
2 „ 3 „	2,546	1,128	11	32	443·1	4·32	12·57
3 „ 4 „	1,390	486	12	21	349·6	8·63	15·11
4 „ 5 „	1,073	592	8	22	551·7	7·46	20·50
5 „ 10 „	404	261	6	12	646·0	14·85	29·70
10 years and upwards	4	2	—	—	500·0	—	—
Total	18,000	7,600	75	*244	422·2	4·28	13·55

* Includes 2 invalids discharged in the Command.

The more important diseases which have affected the health of the troops during the year include the following :—

Influenza.—No particular interest is attached to the prevalence of influenza except in so far as it caused a proportionately large number of admissions. The figures, however, compare most favourably with those of last year. The disease was mild in character, and its tendency to spread among the men was checked to some extent by disinfecting rooms, clothing, &c., of those admitted to Hospital for the disease.

Enteric Fever.—Enteric Fever was much less prevalent than in 1905, and the total cases calculated on the average strength of the garrison show a decline of 3 per 1,000.

The death rate is slightly higher, while the invaliding and constantly sick rates are somewhat lower than those of last year.

Comparison with the previous quadrennial period 1902-1905 shows a marked fall under all four headings of admission, death, invaliding, and constantly sick rates.

The percentage of mortality to attack is small (10·71), though greater than that of last year. This increase is ascribed to the severe type of the cases at Pretoria during the first quarter of the year when the epidemic was at its height, both in regard to incidence and mortality. The following table gives the number of admissions and deaths for Enteric fever at each station for the four quarters of the year :—

outh Africa.

Districts.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Transvaal ..	Pretoria ..	62	9	17	1	2	1	26	—	107	11
	Potchefstroom	2	—	1	—	—	—	2	—	5	—
	Standerton ..	4	1	2	—	3	—	2	—	11	1
	Middelburg ..	—	—	—	—	—	—	—	—	—	—
	Barberton ..	—	—	—	—	—	—	—	—	—	—
Orange River Colony and Natal	Bloemfontein ..	14	—	1	—	5	1	4	1	24	2
	Harrismith ..	2	1	—	—	—	—	1	—	3	1
	Maritzburg ..	—	—	—	—	—	—	4	—	4	—
Cape Colony	Wynberg ..	1	1	4	—	1	—	—	1	6	2
	Middelburg ..	—	—	3	1	—	—	5	—	8	1
Total		85	12	28	2	11	2	44	2	168	18

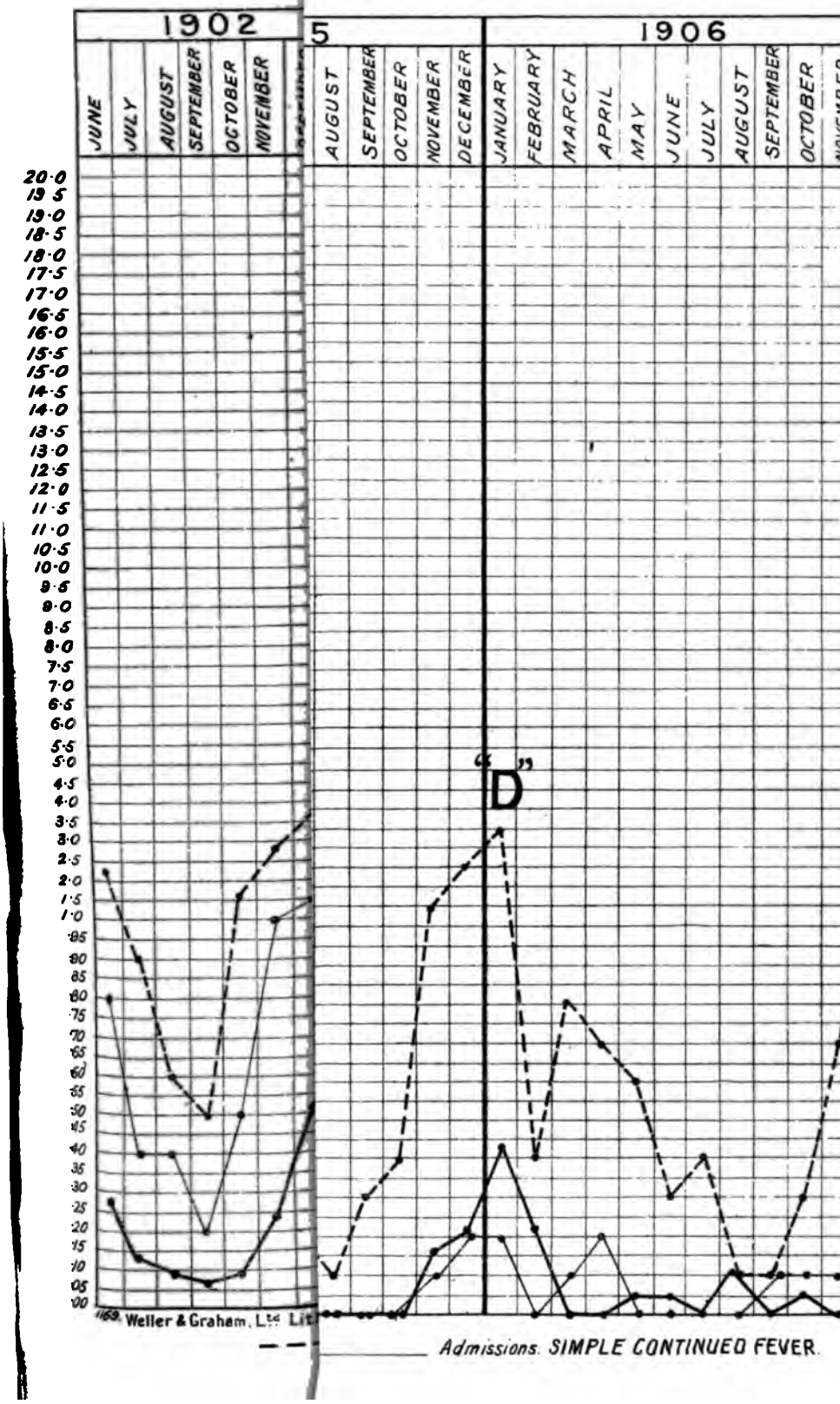
It will be seen that Middelburg, Transvaal, and Barberton have a clear record for enteric fever, while at Harrismith, Potchefstroom, and Wynberg a few sporadic cases only occurred.

Maritzburg gave no enteric fever until the last quarter, when four cases were admitted into hospital. At the time the disease was prevalent in the adjoining civil population, and its occurrence among the troops is attributed to infection contracted within the town.

The garrison of Pretoria, and to a lesser degree that of Bloemfontein, are responsible for the greater number of the total cases. Roughly two-thirds of the enteric fever were furnished by the troops of the Pretoria garrison, and of these two-thirds were admitted during the first half of the year. Having regard to the seasonal prevalence of enteric fever in South Africa, this point is of interest as showing the continuance of the 1905–1906 epidemic.

The accompanying chart graphically indicates the monthly prevalence of enteric fever, and gives a general idea of the course of the disease during the *post-bellum* period, June. 1902–December, 1906. To facilitate reference the four curves representing the seasonal variations are marked "A," "B," "C," and "D," each indicating epidemic waves of the disease for the seasons 1902–03, 1903–04, 1904–05, and 1905–06 respectively, while the figures in the margin indicate the rise and fall of enteric fever admission and death rates calculated on a basis per 1,000 strength.

CHART ENTERIC FEVER AND SIMPLE CONTINUED FEVER FOR THE PERIOD 1902 TO 1906.



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It will be seen that the seasonal prevalence of enteric fever roughly coincides with the hot and rainy months, October to April. The enteric curve begins to rise in late September or early October, and reaches its maximum about January or February, subsequently declining to a minimum during the cold weather months of June, July, and August. *South Afr*

On viewing the chart as a whole marked differences between the two curves "A" and "B," and "C" and "D" will be noticed.

In the seasons of 1902–03 and 1903–04 enteric fever prevalence commenced in September and October. The epidemic waves show a steady rise by regular increments to a maximum in February and March, and a subsequent fall by almost equally regular gradation to a minimum in August. The general outline of these curves follows a more or less regular and uninterrupted course.

On the other hand the epidemic waves of 1904–05 and 1905–06 commenced somewhat similarly, but shortly afterwards became subjected to marked interruptions. This is particularly noticeable in curve "C," where the disease, after commencing in severe epidemic form in late September, never assumed any serious proportions before its final subsidence in August. A similar characteristic is noticeable in the 1905–06 epidemic, though in this case the primary check was not effected until February.

During the period 1903-06 the admission rate of Enteric Fever in South Africa has fallen from over 41 per 1,000 in 1903 and 1904 to 12 and 9 per 1,000 in the years 1905 and 1906 respectively, the death rates have decreased from nearly 5 per 1,000 in 1903 to ·91 and 1·0 per 1,000 in 1905 and 1906 respectively, while the invaliding and constantly sick rates for the disease show correspondingly satisfactory results.

In regard to the causation and prophylaxis of Enteric Fever the Principal Medical Officer, South Africa, writes :—

"No facts have come to light which lead to elucidate in any way the causation of the disease. On the contrary careful investigation of each case has only served to emphasize the fact that there is a factor in the etiology of the disease with which we are entirely unacquainted. In the absence of definite knowledge efforts at prophylaxis have been confined to general sanitary precautions, namely, protection of water and food supplies and efficient scavenging as far as possible. Special efforts at prevention were, however, directed on the assumption that the disease is highly contagious, and measures for early isolation and disinfection were rigidly enforced.

"These steps were taken in all suspicious cases of fever to ensure avoidance of delay in enteric cases. There is strong reason to believe that the above measures were effective in limiting the spread of the disease."

The following table indicates the progress of *Enteric Fever* at each of the stations now in occupation during the quadrennial period 1903–06. The figures show that every station has contributed its quota towards the general decrease :—

Stations.	1903. Number. Strength.	1903. Number. Admitted.	1903. Number. Died.	1903. Ratio per 1,000 of Strength. Admitted.	1903. Ratio per 1,000 of Strength. Died.	1904. Number. Strength.	1904. Number. Admitted.	1904. Number. Died.	1904. Ratio per 1,000 of Strength. Admitted.	1904. Ratio per 1,000 of Strength. Died.	1905. Number. Strength.	1905. Number. Admitted.	1905. Number. Died.	1905. Ratio per 1,000 of Strength. Admitted.	1905. Ratio per 1,000 of Strength. Died.	1906. Number. Strength.	1906. Number. Admitted.	1906. Number. Died	1906. Ratio per 1,000 of Strength. Admitted.	1906. Ratio per 1,000 of Strength. Died.
Pretoria	3,325	266	27	80·0	8·12	3,144	224	17	71·2	5·41	3,706	104	7	28·1	1·89	3,337	107	11	32·1	3·30
Barberton	422	6	1	14·2	2·37	395	2	2	5·1	5·06	372	—	—	—	—	235	—	—	—	—
Middelburg, Transvaal ..	1,921	27	1	14·1	·52	1,908	39	12	20·4	6·29	1,796	10	—	5·6	—	1,480	—	—	—	—
Standerton	1,742	47	4	27·0	2·30	1,543	52	12	33·7	7·78	1,651	3	—	1·8	—	1,540	11	1	7·1	·65
Potchefstroom	2,050	160	21	78·0	10·25	1,507	11	—	7·3	—	1,957	15	—	7·7	—	1,818	5	—	2·8	—
Bloemfontein	2,152	78	2	36·2	·93	3,331	260	29	78·1	8·71	3,402	52	3	15·3	·88	3,479	24	2	6·9	·57
Harrismith	2,554	54	8	21·1	3·13	1,584	137	9	86·5	5·68	1,509	37	6	24·5	3·98	1,590	3	1	1·9	·63
Wynberg	2,502	162	16	64·7	6·39	1,403	22	1	15·7	·71	1,540	2	—	1·3	—	1,520	6	2	3·9	1·32
Middelburg, Cape Colony ..	2,935	95	16	32·4	5·45	3,044	50	6	16·4	1·97	2,143	7	1	3·3	·47	2,296	8	1	3·5	·44
Pietermaritzburg	794	33	8	41·6	10·08	656	18	2	27·4	3·05	517	—	—	—	—	705	4	—	5·7	—

South Afric

By far the most serious outbreak of Enteric Fever during the year occurred at Roberts' Heights and Pretoria (Pretoria Garrison), and formed the subject of special investigation by the Sanitary Officer, Transvaal District. In regard to the epidemic he states :—

"There is no evidence to incriminate the water supply. The service is a pure one, and periodic chemical and bacteriological examination had furnished no proof of pollution. Drinking water for the troops was systematically boiled, while in the town the same water was drunk unboiled, yet a heavier proportionate incidence of the disease fell on the troops.

"There is no special incidence of the disease on that portion of the military community which included the chief water drinkers. Only 28 of those attacked admitted that they drank any unboiled water. This evidence appears to preclude the possibility of any general infection of the water supply."

He further adds :—

"On similar evidence the milk supply may be excluded. There was no evidence to incriminate water which had been stored for drinking purposes after boiling.

"*Mineral Waters.*—This supply was practically all drawn from the same source—the South African Garrison Institute Factory. The water used is sterilized by passing through Berkefeld filters. The factory was thoroughly well conducted, and there was no evidence to incriminate this supply.

"*Contact Cases.*—In 31 of the cases more or less intimate contact with a previous case, or with possibly infective formites, could be traced. Frequently latrines were used in common. The Military Prison furnished an undue proportion of cases. As the prison was in a thoroughly sanitary condition, and all sources of food supplies and of drinking water were under the strictest supervision and control, I am inclined to attribute these cases to infection conveyed by bedding sent to the prison to be re-made.

"*Flies.*—Since September, 1906, there has been a remarkable diminution in the number of flies in cantonments as compared with the preceding year. This corresponds with a similar reduction in the enteric fever rate for similar periods, but is possibly only a coincidence.

"The principal prophylactic measures adopted consisted in the investigation of each case with the view to determine how the infection was acquired and common factors were sought for.

"Disinfection of barrack-rooms, clothing, kit, bedding, and latrines, was carried out at the earliest possible moment. All cases of continued fever of a doubtful nature were treated on the assumption that they might prove to be infectious and disinfection was carried out at once, without waiting till a definite diagnosis could be arrived at. The excreta and urine of all cases treated in hospital were destroyed by burning. All convalescent cases of enteric fever were given a course of urotropine and no case was discharged from the Military Hospital, Roberts' Heights, until the absence of bacilluria had been demonstrated bacteriologically. Troops were warned against partaking of uncooked vegetables obtained from doubtful sources, as I had myself seen lettuces intended for the market being washed in sewage polluted water."

The principle of treating all cases of Continued Fever of a doubtful nature on the assumption that they may prove infectious, was brought into force early in the enteric fever season of 1904–5, as it was found by experience that a large proportion of enteric cases assume the appearance of Simple Continued Fever, and that unless complete and efficient disinfection is carried out at once the disease shows a strong tendency to spread.

The following tables show as far as possible the influence of age and service in South Africa on the incidence of the disease :—

South Africa.

Ages.	Average Strength.	Admissions.	Deaths.	Ratio per 1,000 of Strength.	
				Admissions.	Deaths.
Under 20 years ..	1,636	10	1	6·1	·06
From 20 to 25 years ..	8,462	102	11	12·1	1·30
„ 25 „ 30 „ ..	5,286	44	6	8·3	1·14
„ 30 „ 35 „ ..	1,830	7	—	3·8	—
„ 35 „ 40 „ ..	613	4	—	6·2	—
„ 40 and upwards	143	1	—	7·0	—
Total	18,000	168	18	9·4	1·00

Length of Service.	Average Strength.	Admissions.	Deaths.	Ratio per 1,000 of Strength.	
				Admissions.	Deaths.
Under 1 year	6,731	61	6	9·1	·90
1 to 2 years	5,852	43	2	7·3	·34
2 „ 3 „	2,546	24	2	9·4	·79
3 „ 4 „	1,390	20	5	14·3	3·59
4 „ 5 „	1,073	18	3	16·8	2·29
5 „ 10 „	404	2	—	4·9	—
10 years and upwards	4	—	—	—	—
Total.. ..	18,000	168	18	9·4	1·00

The total admissions for *Other Continued Fevers* include 13 cases of simple continued fever. When compared with the figures for the year 1905, simple continued fevers show a fall corresponding to that of enteric.

Chart on page 84 outlines the general course of *Simple Continued Fever* for the period 1903-6. Comparison with corresponding curves for enteric fever discloses a close similarity in seasonal prevalence between the two diseases, a rise in enteric incidence being frequently accompanied by a proportionate rise in simple continued fever and a fall in enteric being accompanied by a similar fall in that of simple continued fever.

The following table shows the prevalence of Dysentery, Diarrhœa, and Hepatic Diseases (Congestion, Inflammation, and Abscess of Liver) at each station :—

Stations.	Strength.	Dysentery.				Diarrhœa.				Hepatic Diseases.				Total.			
		Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Pretoria	3,337	21	—	6·3	—	19	—	5·7	—	2	—	·6	—	42	—	12·6	—
Barberton ..	235	1	—	4·3	—	2	—	8·5	—	—	—	—	—	3	—	12·8	—
Middelburg (T.)	1,480	—	—	—	—	3	—	2·0	—	4	—	2·7	—	7	—	4·7	—
Standerton ..	1,540	5	—	3·2	—	12	—	7·8	—	2	1	1·3	·65	19	1	12·3	·65
Potchefstroom ..	1,818	25	—	13·8	—	11	—	6·1	—	17	1	9·3	·55	53	1	29·2	·55
Bloemfontein ..	3,479	21	—	6·0	—	53	—	15·2	—	12	—	3·4	—	86	—	24·7	—
Harrismith ..	1,590	1	—	·6	—	28	—	17·6	—	1	1	·6	·63	30	1	18·9	·63
Wynberg ..	1,520	2	—	1·3	—	5	—	3·3	—	8	—	5·3	—	15	—	9·9	—
Middelburg (C.C.)	2,296	6	—	2·6	—	2	—	·9	—	3	1	1·3	·44	11	1	4·8	·44
Pietermaritzburg	705	—	—	—	—	6	—	8·5	—	1	—	1·4	—	7	—	9·9	—
Total ..	18,000	82	—	4·6	—	141	—	7·8	—	50	4	2·8	·22	273	4	15·2	·22

uth Africa.

Dysentery.—A marked fall has taken place in the prevalence of Dysentery, when compared with similar figures for 1905. The greatest improvements are shown at Pretoria, Bloemfontein, and Harrismith, while at the remaining stations, excepting Potchefstroom, a comparatively insignificant number of cases were recorded both for 1905 and 1906. The undue prevalence of Dysentery at Potchefstroom is attributed to recurrent cases among men who had recently arrived at that station from India.

The use of anti-dysenteric serum was largely adopted in the treatment of dysentery and is stated to have given successful results when other methods failed. As a prophylactic thorough disinfection of latrines, &c., was systematically carried out in connection with every case of the disease.

Malaria as a disease of local origin is practically non-existent at the military stations in South Africa, and the appearance of malarial diseases among the list of admissions to hospital is almost exclusively due to recurrent attacks among soldiers who had previously contracted malaria elsewhere, *e.g.*, India.

Tubercle of Lung and Septic Disease.—The admission figures for Tubercle of Lung and Septic diseases show a slight decline over those of previous years. Among Septic diseases are included 21 cases of Erysipelas, a disease though of less frequent appearance and occurring in milder form than formerly, shows a slight tendency to undue prevalence at some stations, *e.g.*, Pretoria and Bloemfontein.

Venereal Diseases.—Syphilis was less prevalent than in the previous year, though a slight increase in the admission rate is noticed over the average for the quadrennial period 1902–5. The numbers "finally discharged," however, compare favourably with those of all previous years.

The following table shows the number of cases treated on the continuous system and the various methods employed in the administration of mercury :—

Placed on Register.	Number of Cases.	Method of Treatment.									
		In Hospital.					Out of Hospital.				
		Mouth.	Inunction.	Injection.	Other Methods.	Mixed Treatment.	Mouth.	Inunction.	Injection.	Other Methods.	Mixed Treatment.
For the first time	200	61	10	39	1	63	8	6	59	—	103
As transfers from other Stations	344	35	3	22	—	26	48	7	199	1	57

Re-Admitted.	Number of Cases.	Re-Admissions while being treated by				
		Mouth.	Inunction.	Injection.	Other Methods.	Mixed Treatment.
Once	104	21	2	38	11	32
Twice	22	4	—	10	4	4
Thrice	3	1	—	2	—	—

Number of cases struck off the Register during the year on completion of treatment 177
Number of days such cases were under treatment—Longest period .. 1,297
" " " Shortest period .. 10
" " " Average 620
Number of cases transferred to the Army Reserve or discharged from the Service during the year 32

No marked change is recorded in the incidence of venereal diseases other than Syphilis, and a comparison with the figures of the past quadrennial period show that venereal incidence in South Africa has remained a comparatively steady factor.

The following table gives the incidence of all forms of Venereal in each of the Military Garrisons :—

Stations.	Strength.	Ratio per 1,000 of Strength.		
		Admissions.		
		Syphilis.	Gonorrhœa.	Soft Chancre.
Pretoria	3,337	14·4	12·6	5·7
Barberton	235	8·5	4·3	8·5
Middelburg, Transvaal ..	1,480	8·1	11·5	6·8
Standerton	1,540	9·7	22·1	3·9
Potchefstroom	1,818	16·5	16·5	10·5
Bloemfontein	3,479	26·2	32·2	23·9
Harrismith	1,590	18·2	19·5	6·3
Wynberg	1,520	38·2	111·8	38·8
Middelburg, Cape Colony	2,296	25·3	19·2	32·2
Maritzburg	705	34·0	22·7	9·9
Totals	18,000	20·4	27·6	16·1

South Africa. Venereal incidence, it will be noticed, is highest at garrisons such as Wynberg and Bloemfontein, where barracks and camps are either immediately within or adjoining civil town areas, while a lesser prevalence is found among troops occupying cantonments more or less isolated from the civil population, *e.g.*, Standerton and Middelburg, Transvaal.

In regard to venereal prevalence at Bloemfontein, the Administrative Medical Officer, Orange River Colony, writes :—

"Venereal diseases show an increase over the previous year. . . . No special ordinance has yet been passed by the Civil Government for the curtailment of these diseases, but the Civil Police are actively co-operating with the Military Authorities in banishing loose characters from cantonments and their vicinities, and I expect this will have a very controlling effect on the decrease of these diseases in the future."

Parasitic Diseases.—Eleven cases of Bilharzia Hæmatobia are included among parasitic diseases. Of these 9 occurred at Middelburg, Transvaal, the remaining 2 being admitted to hospital at Harrismith. The prevalence of Bilharzia Hæmatobia among the men at Middelburg is attributed to bathing in the Klein Oliphants River. The disease materially affected the invaliding figures, no less than 10 cases being sent home during the year.

Debility and Nervous Diseases.—The marked decline in the admission, invaliding, and constantly sick rates for debility and diseases of the nervous system, may be accepted as the effect of the improved general state of health prevalent throughout the year.

Circulatory Diseases.—Circulatory diseases and diseases of the heart show but a slight decrease over those of the previous year. A marked improvement is, however, indicated in the severity of the affections as shown by the figures for those finally discharged as well as for those invalided to England. In 1905, 47 men were sent home of whom 29 were eventually lost to the service, while in the present year (1906), only 31 men were invalided to England, of whom 20 were finally discharged.

The present figures, however, are still very high, and, excepting only diseases of the digestive system, circulatory affections have proved the most fruitful cause of invaliding to England, and, excluding tubercular diseases, they have caused a greater loss in men to the service than any other group of diseases. In some measure the prevalence of heart affections may possibly be influenced by the high altitude of the garrisons in South Africa, but as the "Soldiers' Heart" is notoriously prevalent throughout the Army, both at Home and Abroad, a more general cause connected with the methods of physical training is probably the real factor at fault.

Pneumonia.—The extreme prevalence of pneumonia more particularly in the Transvaal is a subject of considerable interest both to the Military and Civil communities of South Africa.

In 1905 pneumonia as a distinct disease, and as secondary to influenza, caused by far the highest death rate of any single disease among the troops in South Africa. During the present year the death rate for pneumonia is second only to that of enteric fever, while the case mortality is considerably in excess of that for the latter disease.

The regular seasonal appearance of pneumonia in epidemic form on the Rand has occupied the attention of the Mining Community for some time past, and lately it has been the subject of special investigation by the Medical Officer of Health, Johannesburg (Dr. E. Porter), who in his report for 1904–06 refers to the disease in the following terms :—

"It is, however, generally agreed that pneumonia is an infectious disease, usually caused by the pneumococcus, and that it is predisposed to by devitalizing influences of any kind, such as irregularities and excesses of life (especially alcoholism), insanitary environment, overcrowding, and air pollution, as well as by inferior and insufficient food and neglect of precaution against the great and sudden diurnal changes of temperature characteristic of the South African climate. Furthermore, there can be little

doubt that the very great amount of dust with which Johannesburg is liable to be afflicted in the dry season has had a very considerable share in the production of the disease, and this view is confirmed by the fact that dust taken in May in Market and Fox Streets has been shown to be very sharp, angular, and irritating as that taken from mine stopes. Finally, as the 'spit' of pneumonia patients swarms with the germs of the disease, there is little doubt that the disgusting habit of spitting inside dwellings, bars, and public vehicles is an appreciable factor in spreading the disease.

"The above-mentioned causes of pneumonia obviously suggest such remedies as in the present state of knowledge may be considered of use. The general improvement of the sanitary conditions under which we live, the making of roads and the consequent abatement of dust, combating the practice of spitting in dwellings and public vehicles, the avoidance of excesses, and the ingestion of a sufficiency of good food are amongst the most important points to bear in mind. And it is also to be noted that prompt medical advice and attention when an attack appears to threaten is of the utmost importance, and, further, that the number of those attendant on a person suffering from pneumonia should be limited to that sufficient for the comfort and welfare of the patient."

Though conditions of overcrowding, insufficiency of food, and insanitary environments cannot be made applicable to our Military population, the dusty atmosphere of cantonments due to the absence of well-metalled roads, by-paths, &c., presents a somewhat similar condition to the streets of Johannesburg, and the objectionable habit of spitting on floors of barrack-room verandahs, canteens, &c., though largely checked by the provision of spittoons and the exercise of disciplinary measures, is probably to some extent responsible for the spread of the disease among the troops.

Digestive System.—The highest number of admissions in any one group is shown by diseases of the Digestive System. The diseases chiefly comprised dental affections, always very prevalent, not only in South Africa, but throughout the Army generally, throat affections, digestive disorders, colic, diarrhœa, and liver troubles. The figures for diarrhœa and hepatic diseases are given in the table on page 89.

Diarrhœa prevalence is particularly marked at Harrismith and Bloemfontein, stations at which the admission rate figures are twice as great as that of any other in South Africa, while hepatic diseases largely preponderate at Potchefstroom. The garrison at the latter station comprised two Cavalry Regiments, recently from India, and the 2nd Battalion Border Regiment, which arrived from Burma in January, 1905. To the presence of these regiments, among whom liver troubles were largely prevalent, is mainly attributed the unusually high incidence of hepatic diseases at this station.

The remaining diseases and groups of diseases are of lesser importance, and require no special reference.

Surgical Operations.—105 operations were performed during the year for various affections requiring surgical treatment. Of these 6 terminated fatally subsequent to operation. The more important operations included the following :—

Removal of tumours 3, operations on veins 11, operations on the eye and its appendages 6, operations on the ear 2, bones 8, joints 3, abdomen 27, tendons 2, rectum and anus 14, male generative organs 6, skin (onychia) 10, operations on skull and brain 2.

The operations on veins were all for varix ; the results were satisfactory in every case, and the men returned to duty.

Two operations for suppuration of middle ear were performed. In one meningitis supervened, and the patient died. The second case was invalided to England.

Of the operations on bones, in 6 cases of fracture wiring of the fragments was carried out.

Four cases of typhlitis, all successfully operated upon, were discharged to duty.

South Africa. Inguinal Hernia.—12 cases were operated upon. All were reported as satisfactory. Of 8 cases of Abscess of Liver operated upon, 3 died, 1 was invalided to England, 2 are shown as still in Hospital, 1 as "requiring further operation," and 1 discharged to duty.

Chloroform was the anæsthetic generally used. Eucaine, sometimes combined with adrenalin, was used in 17 cases, gas and ether in 1, and cocaine (in eye operations) 2.

SANITARY CONDITIONS.

In regard to sanitary progress, the Principal Medical Officer, South Africa, reports that it has not been found possible to carry out sanitary improvements on a large scale during the year owing to the want of funds. Many minor matters have, however, received attention. The most hopeful sign is the interest taken by all ranks in measures for the prevention of disease, and consequently efforts to enforce compliance with details of sanitation have met with a more sympathetic reception. The attempts made at the various stations by lectures and otherwise, to impart knowledge of sanitary matters to all ranks have largely contributed to the above results.

It is said that many ordinary and necessary appliances are still wanting for sanitary services. More particularly properly constructed carts for the carriage of rations from Army Service Corps depôts to units, as also carts for the removal of refuse and stable manure by units. The latter service has, during the past year, been carried out by units instead of by contractors as formerly. No special carts were provided, hence refuse had to be carried in open buck wagons, a large proportion being distributed *en route*. Modifications were effected on a certain number of these carts to check the spillage, but not with satisfactory results. The provision of special carts of an approved type for the removal of refuse and manure is thus considered an urgent necessity.

During the year improvised incinerators for the local destruction of stable manure were erected at all stations. Their use is restricted to the combustion of stable litter and other highly combustible material, which, if burnt in the open, would be liable to be blown about by the wind. They are, however, slow in action, provide a large quantity of ash, and it is difficult to keep their surroundings clean. On the whole, these incinerators are not an improvement on the old system of removal, though no doubt they effect an economy. Objection is taken to their use on the ground that they cause a nuisance as well as affording a ready breeding-ground for flies within cantonments.

The question of the housing of natives has received considerable attention, and a scheme has been put forward with the view of providing suitable quarters for Kaffirs in military employment. Meanwhile, various steps have been taken to improve their existing quarters and surroundings. In the case of Bloemfontein, the whole Kaffir location was removed from Tempé cantonments during the year and placed on a better sanitary footing on a more suitable site.

In regard to drainage, with the exception of the newly erected huts in the neighbourhood of the Artillery Barracks, Pretoria, which were linked up with the Municipal sewerage system, no new works were undertaken for further extending the water-carriage system of drainage in cantonments.

At present the dry-earth system is in use at Barberton and Middelburg (Transvaal), Bloemfontein, Pietermaritzburg, Middelburg (Cape Colony), Wynberg, and it still persists to a limited extent at Pretoria, Roberts' Heights, Potchefstroom, and Standerton.

Where in use, the dry-earth system has been well attended to. The objections to the use of dry earth are well known, and every effort is being made to replace it by a water-carriage system where this is practicable and funds are available. A *water-carriage system* with biological installations at the outfall is in use at Pretoria, Roberts' Heights, Potchefstroom, Standerton, and Harrismith. The installation of a water-carriage system is about to be commenced at Wynberg and Simons Town.

Drains and Sewers.—The ventilation of the drainage system at Roberts' Heights has been reported as unsatisfactory, but no funds have yet been allotted to remedy the defects.

Sewage Disposal.—The biological installations in use have succeeded in disposing of the sewage inoffensively and safely.

South Africa.

The quality of the effluents has, however, fallen far short of English standards of purification, and no effluent has reached such a standard of purity as that demanded before it could be turned into a potable stream. Fortunately other means of disposal are available; the effluent from the Pretoria installation is turned into the non-potable stream, the Aapies River, and, in the case of the other installations, practically unlimited land is available to absorb the effluent. Ultimate sewage disposal cannot therefore be regarded as unsatisfactory.

The comparative failure of these installations judged by English standards of purification has been attributed to (1) the inexact conditions under which these installations have been working; (2) want of skilled supervision.

In some instances the actual delivery of sewage has not coincided with that estimated for, while variations in the composition of the garrison with attendant variations in the composition and amount of sewage have disturbed the working of the tanks in some instances, notably at Potchefstroom.

Nearly all the difficulties experienced in connection with sewage disposal have been traceable to failure of the aerobic filter beds.

The same high standards of chemical purification as are required at home to fit an effluent for discharge into a potable stream are not required under South African conditions, where the effluent can be safely disposed of without the risk of polluting water supplies. Aerobic filtration gives little added security against specific diseases, but merely raises the effluent to what is regarded as an unnecessary high standard of chemical purification, taking local conditions into account. Passage through the closed septic tank alone breaks down the solids in the sewage, and the tank effluent is fit to run direct on to land without the intervention of an aerobic filter bed. It is suggested that if these aerobic filter beds could be dispensed with the problem of sewage disposal would be greatly simplified, and no skilled supervision would be required.

This system of sewage disposal by treatment in anaerobic tanks, with subsequent land treatment of the tank effluent, has been experimentally tried for a year at the Hospital installation at Roberts' Heights. The aerobic filters there have been cut out, and the tank effluent is led direct on to land. The results have been satisfactory, and no nuisance has resulted.

During the year complaints were received from the Pretoria Municipality regarding the quality of the effluent from the Military installation at Pretoria. The effluent is not land treated, and is discharged into the Aapies River—a non-potable stream. This effluent can only be classed as fair. There are structural defects in this installation. It has been recommended that the tank be so worked as to ensure a 12 to 18 hours' contact in the anaerobic tank, and that to ensure better aeration the outer cemented masonry wall of the aerobic filter be removed and replaced by large clinker.

The exact conditions under which each installation is being worked is at present under investigation.

The conditions of warming and lighting in barracks is far from satisfactory. The old pattern barrack-room lamps at present in general use afford an insufficient light, and their substitution by some better method of lighting is much to be desired. The installation of electric light at Roberts' Heights was carried out during the year, and has proved a great boon to the troops.

Food Supplies.—The quality of the rations supplied has been good. The bakeries, butcheries, and dairies owned by contractors have frequently, however, failed to reach an acceptable sanitary standard. To remedy this it has been suggested that Government bakeries, butcheries, and dairies should be erected in cantonments, and rented to the contractor. This principle has been conceded in the case of bakeries, and plans for the erection of Government bakeries have been approved, but owing to want of funds none of these buildings have yet been erected.

An excellent butcher's shop has, however, been erected at Potchefstroom.

Last year the quality of the tea supplied was not satisfactory. Since then the source of the supply has been changed with satisfactory results. *South Africa*

Water Supplies.—The water supplies of the various cantonments is generally satisfactory. Where Enteric fever and Dysentery have occurred there is strong evidence to prove that these diseases have not been water borne, and that no general infection of a water supply has occurred. At Pretoria some contamination is still possible; the risk is, however, slight, and periodic chemical and bacteriological examinations have been satisfactory.

The storage accommodation at Roberts' Heights is insufficient, and this has led to occasional intermittency in the supply.

At Artillery Barracks and Magazine Hutments, Pretoria, the supply has at times failed, owing to faulty distribution through the town mains. It is proposed to pipe water direct to these barracks, so as to render them independent of the town water supply. During the dry season the water supply at Middelburg, Transvaal, was again inadequate. The garrison has, however, now been greatly reduced, and ample water is available for the needs of the troops now quartered there.

The water supply of Middelburg, Cape Colony, is of particularly good quality, being obtained from bore holes which are well protected from all source of contamination.

The supply at Bloemfontein is reported to be improving, owing mainly to the adoption of a new process, by which lime and permanganate of potassium are added in the sterilizing tanks. This has caused a reduction in the turbidity of the water, as also in the number of micro-organisms it contains.

Generally speaking, arrangements are in force for the boiling of drinking water at all stations. These appear to have been effective, though in some instances the water-boiling installations are defective in detail. At Harrismith a special water sterilizing apparatus connected with a complete system of piped distribution is in force, while at Pietermaritzburg a Maiche's sterilizer has been in use since the late war.

VII.—ON THE HEALTH OF THE EUROPEAN TROOPS SERVING IN INDIA.

General Remarks.

India.

Before commencing to describe the course of events during the year under review, a few remarks on the Sanitary Organization of the Army of India may be appropriate. The head of the military Sanitary System is the Principal Medical Officer, His Majesty's Forces in India, who is on the Staff of the Commander-in-Chief. To assist him in the more technical details of Sanitation he has on his own staff a Sanitary Officer at Army Headquarters, whose duty it is to supervise all Sanitary Work, as far as the Army is concerned, and to whom all projects for new barracks, new cantonments, &c., are submitted for criticism, before being laid before the Principal Medical Officer. Similarly in each of the Commands, Northern, Eastern, and Western, the Principal Medical Officer on the Staff of the Lieutenant-General Commanding supervises all Sanitary Work in his Command, assisted by the Command Sanitary Officer, who is an officer of the Royal Army Medical Corps of Field Rank. This officer's duties are *mutatis mutandis* similar to those of the Sanitary Officer at Army Headquarters, except that he comes more closely into relation with the executive work of sanitation in his Command, and more especially is concerned in the investigation of any epidemics that may occur. In the Secunderabad and Burma Divisions the sanitary work is carried out by a specially appointed Sanitary Officer responsible for both Divisions, but having his Headquarters in the first-mentioned of these. One of the most important duties of these Sanitary Officers is to keep themselves acquainted with the various systems of water supply in use in the different stations of their respective Commands. For this purpose each has at his permanent Headquarters a well-equipped Laboratory where detailed examinations can be carried out, and he is assisted by a medical officer especially detailed for the purpose. In addition, it may be stated that much use is made of these laboratories by other medical officers on duty at the Headquarter Station, and all clinical examinations connected with the work of the local Station Hospital are carried out here. The sanitary work of individual stations, even where a Command Sanitary Officer is posted, rests with the Senior Medical Officer of that station. He is the responsible adviser of the Officer Commanding the station in this respect, and is also a member of the Cantonment Committee. Commanding Officers of units in the station are responsible for the sanitation of the area occupied by their respective units, and to each unit, or in the case of small units, to each collection of these, a medical officer is posted as Sanitary Adviser to the Officer Commanding the same. In respect of work that concerns the station as a whole, viz., the removal and disposal of night soil, the conservancy of roads, private compounds, and unallotted areas generally, the Cantonment Magistrate is the authority directly respon-

sible for the execution of sanitary work. Water supply, however, is under the Military Works Department, as far as executive duties are concerned. At all Divisional and Brigade Headquarters small Laboratories are established where examination of water, food supplies, &c., and the clinical work of the local hospitals can be carried out. Extended investigation which may be beyond the powers of the local Laboratories is referred to the Command Sanitary Officer. These local Laboratories are in the charge of specially-appointed officers, and are inspected at least once a year by the Command Sanitary Officer. Steps are now in progress to extend this system, so that even in the smallest stations a certain amount of research can be carried out. Much may be hoped for in this direction in the resolution of the problem of the different unidentified fevers, a large subject of which the fringes have barely been touched on. The wide dissemination of apparatus suitable for such work is therefore a step of the highest importance in the prevention of disease.

As regards the general health of the European Army in India, a very fair approximation can be arrived at by considering the number of men constantly sick in each station during each month of the year. Of course, the estimate thus furnished is only a rough one; it does not, for instance, differentiate between a severe illness which disables a man for many weeks but is of comparatively rare occurrence, and a disease which, though only of short duration, is of very frequent occurrence, yet as showing the general health of the country or area under consideration, and, a more practical point still from the military point of view, the number of men who at any one moment are absolutely unavailable for duty owing to sickness or injury, these figures have a distinct value. The general system in vogue in India is to class all stations with a constantly sick ratio of under 5 per cent. as "good," those between 5 per cent. and 7·5 per cent. as "fair." From 7·5 per cent. to 10 per cent. as "indifferent," and above 10 per cent as "bad." We may now look at the health of the various Commands on this basis, taking only the more important stations in each, avoiding thereby the statistically disturbing influence of the smaller numbers.

Beginning with the Northern Command, which corresponds to the Civil areas of the Punjaub and Frontier Provinces, we find that of the eight largest stations one only shows a "bad" ratio, viz., Nowshera in the month of November. This high ratio was due to a great access of admissions for *malarial fevers* 283 men being admitted to hospital for this cause alone during this month. These fevers had begun to be prevalent in October, in which month 89 cases occurred, but in the absence of other causes of disease this had not been high enough to affect the numbers constantly sick, the cases being comparatively mild and of short duration. Rawal Pindi and Peshawar both suffered from this outbreak of malarial fevers, these stations being the one about 75 miles south, the other 25 miles north of Nowshera. The former had 77 cases of malarial fever in September, 263 in October, and 370 in November, the latter 81 in September, 281 in October, and 516 in November. The cause of this high malarial ratio was undoubtedly the heavy rains which occurred in these parts towards the end of the south-west monsoon. At both Rawal Pindi and Nowshera the surface is much intersected by "nullahs," *i.e.*, ditches or ravines, which though usually dry, form torrents after rain, and contain stagnant pools for a long time afterwards. Their irregular course, and their extremely uneven beds make them the most difficult of problems as regards prevention of malaria. Short of canalizing them, a work of great expense, no complete remedy is possible, in all probability. Rawal Pindi reports "indifferent" health in the month of May, the result of a considerable number of admissions from *simple continued fever* attributed to the effects of direct exposure to the sun, and dietetic imprudencies. Nowshera suffered in a similar manner during May, June and July, but not to a sufficient extent to seriously raise the constantly sick ratio. Peshawar reported a rather extensive outbreak of *influenza* during the months of May to October, this being the second year in succession that this disease has assumed serious proportions at this station. It is important to note that these months are those of extreme and oppressive heat, and that with the advent of cold weather the disease gradually disappeared. It is

India.

noted that the disease was also epidemic among the native population at the same time. The disease does not appear to have been severe, and caused no casualties.

In connection with this disease, attention may be called to the so-called "Chitral Fever." This is a febrile disease of short duration characterized by high temperature, without local affections, and accompanied by severe headache, pains in the bones, and general prostration, which latter lasts for several days after the fever has subsided. This fever is characteristic of the hotter months of the year, and is quite distinct from and precedes the yearly outbreak of Malaria in Chitral. The natives distinguish between the two by calling the former "The Mulberry Season Fever," the latter "The Grape Season Fever." The coincidence between the general characteristics of the two diseases and their seasonal incidence is somewhat striking, and it is possible that we have here a hitherto unclassified fever.

Small-pox occurred in the early months of the year at Umballa, Ferozepore, Jullundur, and Peshawar, coincidently with a marked prevalence of the disease amongst the Civil Native population. The greatest number of cases (5) occurred at Umballa, and there were two deaths, one at that station and one at Peshawar. Apart from the cases above given, the health of the Army of the Northern Command during the year under review has been very satisfactory. At three stations, viz., Umballa, Ferozepore, and Sialkot, the number constantly sick never rose above 5 per cent. in any month of the year. Considering the extremely trying nature of the hot weather throughout the Punjaub, this must be looked on as highly satisfactory. It is probably in great part due to the fact that young soldiers and sickly men are so largely sent to the hills for the hot weather, and to this may be attributed the fact that the number constantly sick at Murree, which takes convalescents from the stations north of Lahore was almost constantly above 10 per cent., the cases being mostly of a chronic nature the result of residence below in the plains. It must be stated, however, that Dalhousie, which is the convalescent station for the central stations of the Punjaub, never showed, during the season, a higher ratio than 7·5 per cent. In any case it must be remembered that the amount of sickness at a convalescent depôt bears a closer relation to the health of the Army in general during the year prior to that under discussion, than to that of the year itself.

In the Eastern Command, which corresponds to the Civil areas of the United Provinces and Bengal, the health of the Army was on the whole satisfactory. Thus Barrackpore alone reports a ratio of over 10 per cent. constantly sick, in the month of July. This was apparently the result of *malarial fevers* and *dysentery* for which latter disease combined with liver affections, this station has always had an evil reputation. The same condition lasted through the month of August, a month during which the long strain of the hot weather, combined with the oppressive close atmosphere of the south-west monsoon, is apt to tell somewhat severely on Europeans. Meerut reports an "indifferent" state of health during September and October, the result of *malarial fevers*, and throughout the year no month shows a lower ratio than 5 per cent. of constantly sick, but not due to any one particular cause. No stations in this Command show an unbroken "good" record, as stated of three stations in the Punjaub, but Bareilly and Fyzabad show seven "good" months to five "fair." It is difficult to assign any cause for this in the case of Bareilly, but Fyzabad suffered somewhat from fevers, both continued and periodic, during the months July, August, and September, which brought the rate into the "fair" category. Small-pox occurred in Allahabad and Lucknow (one case each) in June, while Cawnpore had three cases in January, two in February, two in April, and eight in May. The disease, as in the Punjaub, was prevalent in the Native population. One case of beri-beri is reported from Bareilly as probably contracted at Allahabad, and four cases at Cawnpore sent back there from Sitapore, where they then had originally been sent for change from the former station. These were probably the last cases of a slight outbreak of this disease which occurred at Cawnpore, chiefly amongst the Infantry Regiment there, during the later months of 1905.

In the Western Command, which corresponds to the Civil Areas of *Bombay*, Central Provinces, Central India, Bundelkhund, Rajputana, Scinde,

and Beluchistan, the year may, on the whole, be looked on from the point of view of the general health of the troops, as having been a good one. Thus, only one station reports a "bad" ratio of constantly sick, viz., Nasirabad in the months of September, October and November. The cause of this was the occurrence of an outbreak of *malarial fevers* during those months, combined with a rather high ratio of venereal disease. Jhansi shows an indifferent ratio in October, also due to malarial fevers which gave 114 admissions in September, 273 admissions in October, and 229 in November, out of a strength under 1,100. It may be remarked that the uneven rocky surface of this station which also is intersected by irregular nullahs, as already stated in connection with Nowshera, makes the problem of malarial prevention an extremely difficult one. Colaba reports an "indifferent" ratio in January, but this was due to the temporary accommodation of invalids in the hospital there pending embarkation for England. It is a matter for congratulation that the usually unhealthy station of Poona show an uninterruptedly "good" record throughout for the first eight months of the year. Ahmednagar shows a "good" record except in November and December, though here there is less cause for surprise, the station being naturally a healthy one. Quetta showed a "good" ratio throughout the year, until September, when it rose to "fair." No one individual cause can be traced for this. Mhow shows nine "good" months to three "fair," and Jubbulpore eight "good" to four "fair," which is what might be anticipated from these stations in the absence of any serious epidemic. *Small-pox* occurred at Poona and Ahmednagar (one case in each), and Karachi where eight cases occurred, the disease being prevalent among the native population. These all occurred in the earlier months of the year. *Dengue* was severe at Karachi (21 admissions in November), this disease being also prevalent in the City and Bazars. The cases were marked by somewhat abnormally high fever, the temperature rising to 105° and 106° in some cases. It may be noted that this disease has not been reported in this station during the present century with the exception of one case in 1901. During 1902, 1903, and 1904, it was prevalent in Southern India and Burma, but it is usually rare up country.

Plague occurred at Poona, three cases, Colaba one case, but these were sporadic and of no epidemiological significance.

In the Secunderabad Division, in the two chief stations, Bangalore and Secunderabad, the health of the troops was only "fair" on the whole, attaining to "good" in four months in Secunderabad, and in one only in Bangalore. There was no one particular cause for this somewhat unsatisfactory state of affairs, the admissions being spread over a large number of diseases. Venereal diseases were, however, rather above the average, *dysentery* was prevalent in Secunderabad in August, and continued, though with less severity, in September and October. Only one death is reported, however, out of over 50 cases, so that the type cannot have been comparable to that for which Secunderabad used to be notorious.

Bangalore reports 2 cases of small-pox. At Wellington, the convalescent depôt for Burma, as well as for the Secunderabad Division, the health of the troops was "indifferent" in September, and never better than "fair" throughout the rest of the year. Malarial fevers were in part responsible for this, but the cases were all imported, there being no local source of infection at this station.

In Burma the general health of the troops was satisfactory. Rangoon reports eight "good" months, and Mandalay four. Rangoon was "indifferent" in February, due to general causes, largely venereal disease. It is noteworthy that in this year the hot weather and rainy season were uninterruptedly "good," in spite of an outbreak of *dengue* lasting from April to October. The total number of cases was little over 50, which contrasts favourably with 84 in 1902, 151 in 1903, and 141 in 1904. The type was not severe. Mandalay was "fair" on the whole, never showing a less satisfactory ratio than this. There was no particular cause for this, and it is satisfactory to note the great reduction in admissions for malarial fevers at this station, due to the very considerable reduction in the garrison during the "fever" months.

Malarial prevention is almost an impossibility in the Fort, which is intersected by innumerable irrigation cuts and surrounded by a large moat.

India.

Greater advantage is now taken of the more healthy site at Mandalay Hill, and of the neighbouring hill station, Maymyo. In this latter station the health of the troops was "fair" most of the year, being "good" in four months only. This was mostly due to *malarial fevers* in part, no doubt, imported, as the decline from "good" to "fair" coincided with the increase of the garrison due to troops coming up from the lower country, but partly also indigenous. A good deal of land still remains to be reclaimed at this comparatively new station, and in the meantime affords breeding ground for several forms of malaria-carrying mosquito.

Excluding venereal disease, the chief causes of sickness and mortality in the Army of India are "Malarial Fevers," "Simple Continued Fever," and "Enteric Fever." In the decennium 1895 to 1904 these three diseases accounted for nearly one-third of the total admissions to hospital, for considerably over one-third of the deaths from all causes, and for one-fifth of the total number constantly sick. It is to be noted, however, that of this group of diseases which we may conveniently class together as "fevers" enteric fever is the only one that seriously affects the mortality, while the other two add most largely to the sick rate. Thus in the decennium referred to enteric fever alone accounted for nine times as many deaths as the other two members of the group, while they, on the other hand, contributed between them 93 per cent. of the admissions, and four-fifths of the total number constantly sick attributable to "fevers" as a whole. It may, in fact, be stated with almost absolute truth that an Indian station is, as regards the British soldier, unhealthy in so far as it is liable to malarial and simple continued fevers, deadly in as far as it is liable to enteric fever. Simple continued fever, in the decade referred to, gave but slightly more admissions than enteric, and fewer deaths than malarial fever. It cannot, therefore, be considered an important factor, either as regards morbidity or fatality. The diseases returned under this heading are largely short cases of fever due to exposure to the sun, fatigue, or digestive disturbance in the hot months. There is, however, a certain proportion of cases which are probably undiagnosed malarial fevers, in which the characteristic parasite has not been identified, and some which are mild cases of enteric fever presenting none of the characteristic symptoms, and occurring very often when no other cases of the disease exist to cause suspicion of their nature. Possibly also there may exist among them some as yet undifferentiated form of fever, but the general opinion of medical officers who have had much Indian experience is that the fevers with which we have to seriously reckon in India are malarial fevers and enteric fever. In studying the history of these diseases as they have affected the British troops in India we are confronted by the difficulty that for many years the differentiation of enteric fever from the more prolonged forms of malarial fevers was a matter of considerable difficulty. The very existence of the former disease in India was doubted by many, and even such a careful observer as Morehead held that in his time it could not be considered a serious cause of inefficiency in the Army, though he was willing to admit its occasional occurrence. In fact it may be said that it is only within the last 15 years or so that the differentiation of these two classes of fever has been placed on a stable footing. It is obvious, therefore, that if we go back to any great distance we must not place too much reliance on mere nomenclature to guide as to relative increase or decrease of these diseases. We may, however, approach the question in the following manner. Accepting the fact that when dealing with fevers in India we need only consider as of serious import enteric and malarial fevers, and accepting also the fact that while the former disease is the more fatal the latter is the more prevalent, we can, taking the admissions and deaths for all fevers together, get some light on the history of these diseases in the Army of India. In chart "A" attached, curves are given showing the admissions per 1,000 of strength, deaths per 1,000 of strength, and deaths per cent. of cases treated for all fevers from the year 1860 to the present date. The death ratios are multiplied by 100 to bring them into closer juxtaposition with the admission ratios, and for graphic effect. On examining this chart it will be seen that for the first 25 years of the *period* under review the death rate per cent. of cases treated never

reached as high as 1, whereas since 1885 it has never fallen below 1, and has on three consecutive years risen above 2. *India*

Now, if we were dealing with a single disease, the explanation of such a series of curves would, very naturally, be that the type of the disease had altered in the direction of greater fatality. Considering, however, as we are a mixed group of diseases of varying fatality, the most natural solution of the problem is that there has been an increase of the more fatal forms of fevers as compared with the less fatal, that is, that there has been an increase in enteric fever as compared with malarial fevers. At the same time, this disease has actually increased, since the total mortality from fevers has of late years certainly been higher than it was in the earlier part of the period under consideration, though the total admissions have been much lower. Thus, comparing the two first decades of the period, viz., 1860–1869, and 1870–1879, with the last decade, 1897–1906, we find that each of the two first-named show six years in which the total mortality from fevers was less than that of the lowest year of the last decade, viz., 1905. It is to be noted, too, that two years in the decade 1870–1879, in which the mortality for 1905 was surpassed, were those of the Afghan War, when an unduly high death rate was only to be expected. At the same time, on five occasions during the past decade the total mortality from "fevers" has been higher than that of the highest year, 1878, of the earlier decades. The contrast of the type of fever is even more strikingly shown when we compare the admission and death rates of the years of the Afghan War with those of 1897, the year of the Tirah War, and 1898, when many troops were kept on the frontier under practically service conditions. Thus, in 1878 and 1879, the admission rate for all fevers was about 65 per cent. higher than that of the two later years, whereas the death rate of the later years was more than twice as high as that of the two earlier mentioned. This also points to the fact that the type of fever has changed, and that the Medical Officers of the Army of India have had in the past 20 years to deal with a more fatal form of fever, that is with more enteric fever, than their predecessors of the sixties and seventies.

There is little doubt that the opinion of all medical officers who have had to deal with the problem in India during the past 20 years will be that this is the true solution of the question. It might be urged that the increased mortality was due in whole or in part to an increase in fatality of malarial fevers. A chart is therefore appended (B) giving the curve of mortality due to All Fevers, All Continued Fevers, and Malarial Fevers, for the years 1882 to 1903 by Quinquennia. From this it will be at once seen that though the total mortality has varied much, as shown in the first series of curves, that due to Malarial Fevers has remained almost constant. The question of nomenclature need not here be considered, since during this shorter period the question of differentiation of the various forms of fevers has been on a more stable footing, and, in addition, the difficulty where it has existed has always lain with the non-fatal - atypical cases—not with the severe typical ones. We may, therefore, exclude an increased mortality from malarial fevers, and are, therefore, again brought back to the fact that there has been a definite increase in the amount of enteric fever.

Accepting this, it will be seen that the change occurred, as shown in the curve, at about the time when the admission rate for all fevers fell below the death rate for all fevers multiplied by 100—that is, during the early eighties. The explanation that would be probably unanimously given for this phenomena is the increase in the number of young soldiers in the Army of India. That such is the real explanation is seen very clearly by the effect that the occurrence of the South African War had on the incidence of enteric fever in India. During the period covered by that War, the influx of young soldiers into India was almost stopped, while the time-expired and seasoned men were kept on in the country. This fall in the admission rate for enteric fever during the War is clearly shown in the curve giving the admission and death rates per 1,000 for this disease alone during the years 1890 to 1906. It will be seen from this that the years 1900 and 1901 showed a very low admission rate, which was followed immediately by a rise in 1902, when young soldiers began again to be sent out to the country, followed by a further rise during the years 1903 and

dia.

1904. Since then there has been a decided decrease, for which an explanation may be offered in every hope that it is the true explanation, but without too confident an assertion that it is the sole one. Before giving this explanation it may be well to touch briefly on the question of the Removal and Disposal of Excreta in India.

This is in all cases, in Military Cantonments, carried out by hand and cart carriage. The excreta are covered with dry earth and then stored by the sweeper, a low caste native, in a metal receptacle until the advent of the filth cart.

The receptacle is then emptied into the cart, and the latter drives away to the filth trenches where it deposits its load of filth.

It is very easy to see that if the soldier forgets to use the dry earth, and the British soldier is proverbially careless in these matters, or if the sweeper is negligent in emptying the pan into the receptacle, which he not infrequently is, the opportunities for flies to settle on the excreta and convey any infection that may possibly be contained in them to the food or drink supplies of the nearest barrack are numerous.

That all these contingencies did occur was proved to ocular demonstration by Major Weir, R.A.M.C., then Sanitary Officer, Punjaub Command, at Umballa, in the year 1902.

In England and all countries where a water-carriage system of removal of Sewage exists, the general, and in the majority of cases the correct, explanation of the origin of all outbreaks of enteric fever has been the contamination of the Water Supply. In India the same theory was for long considered to hold good, and strenuous efforts were made to see that the water supply of the soldier was safeguarded in every respect. Not only were water supplies on a large scale installed at many stations, *e.g.*, at Quetta, Agra, Bangalore, &c., but the most minute supervision was exercised over the distribution and storage of water in Barracks. That this has had a most beneficial effect is undoubted. Cholera, which 20 years ago was, throughout Upper India, a regular annual visitant at all large Military Stations, may now be said to be unknown in epidemic form. To take one station alone, and at random. Cholera occurred at Meerut in 8 years in the sixties, 7 years in the seventies, 8 years in the eighties, 3 years in the nineties, and once since 1900.

The fact that these measures directed towards the safeguarding of the Water Supply were so efficacious in respect of cholera, and so nugatory in respect of the then believed to be water-borne disease, enteric fever, began at last to raise grave doubt in many minds as to whether this last disease was, in India, really water-borne to the same degree as cholera. That water-borne epidemics do occur in India no one will deny; but when they do occur they present very definite characteristics. They are marked by a sudden outbreak, a rapid rise, a short maximum period, and a rapid fall. The ordinary outbreak of this disease in India is not, however, of this type. It consists of a steady flow of cases, rising usually with the hot dry months, falling with the damp colder months, varying with the movements of troops, and, as a rule, other irregular conditions. To take two cases selected entirely at random. The admissions in the station of Nasirabad during the year 1899 were, taking the months of the year in succession, as follows:—2, 0, 2, 7, 6, 2, 1, 11, 4, 1, 3, 3. For Secunderabad in the same year 3, 2, 5, 1, 6, 3, 4, 7, 2, 6, 6, 3. Instances might be multiplied indefinitely. Gradually those who have had most experience of the disease have come round to the opinion that the cause of enteric fever in India must be looked for, not in the water supply, but in the method of removal and disposal of excreta. That this is now generally held to be the case, is shown by the conclusions arrived at by a Special Committee which has met at Simla in the year under review.

This Committee which was presided over by the Principal Medical Officer, His Majesty's Forces in India, Surgeon-General Gubbins, and consisted of 11 medical officers of both services, met at Simla on the 31st July and following three days. Its first meeting was opened by His Excellency, the Commander-in-Chief, who addressed the Committee at some length, pointing out the extreme importance of the subject submitted for their consideration,

and also sketching the main lines on which preventive work should proceed. These His Excellency stated to be— *India.*

(1) Sanitation of Cantonments and Barracks.
(2) Isolation of Enteric Patients.
(3) Detection of the origin of an outbreak or of a single case.
(4) Inoculation.
(5) Blood examination.

The Committee then proceeded to study a considerable mass of reports and statistics referring to outbreaks of Enteric fever in India, and furnished a Preliminary Report, which is of such great importance, as showing the present state of opinion among experts in India with regard to this disease, that it may be reproduced here *in extenso*.

1.—Preliminary.

"1. The Committee consider that, in the present state of knowledge of the cause and means of spread of enteric fever, the channels by which it is propagated may, provisionally, be classified as follows :—

"(1) Water epidemics.—That is, epidemics caused by the contamination of central water supplies by specifically infected sewage.

"(2) Milk epidemics.—That is epidemics caused by central milk supplies contaminated either by specifically infected water, or by persons who themselves harbour the bacilli or have been in contact with others so infected.

"(3) Infection by shell fish which have either been grown or stored in water contaminated by specifically infected sewage.

"(4) Infection by food and drinks which have been contaminated with enteric bacilli, carried by water, dust or flies.

"(5) Contact infection, either by direct contact with persons harbouring the bacilli, as in the case of attendants on the sick, and of men in close association in the same tent or barrack room, or indirectly by what is known as latrine infection.

"2. They consider that well-established instances of the first two classes of outbreak have been recorded in India ; that no instance of the third has so far been recorded ; *but that the majority of cases of enteric fever which occur in British troops in India are infected by one or other of the ways included in the fourth and fifth headings.* Existing knowledge, however, does not enable a distinction to be drawn, either in individual cases or outbreaks, between the different modes of infection included under headings (4) and (5).

"3. Recognizing then, the human host as the central factory from which the poison is spread, and the bowel discharge, urine, sputa, &c., as the vehicles in which it is distributed, they consider that there is sufficient evidence to show that the number of soldiers, who harbour the bacilli must be very large. These are, men during the incubation and first few days of the disease, slight cases not recognized as enteric fever, convalescents discharged from hospital, and "bacilli carriers," that is, individuals who harbour the bacilli in their bodies without suffering from symptoms of the disease.

"4. Experience in India seems to show that under the conditions at present existing in cantonments, only two additional factors are necessary to determine an outbreak of the disease :—

"(*i*) Certain climatic conditions which favour either the persistence of the bacilli outside the body, or their transmission from infected excreta to fresh individuals, by water, dust, or flies.

"(*ii*) A considerable increase of specially susceptible individuals, such as occurs on the arrival of a draft from England."

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At a second meeting held at Simla on the 17th and 18th of October, 1906, the Committee expressed themselves even more decidedly on this point, as follows :—

"The Committee are convinced that in the sewage problem lies by far the most important factor in the spread of enteric fever in India.

"The present system of sewage removal—a pail system with the almost nominal use of earth—is one which, with modifications in details has been used by almost all communities while towns were still small and death rates but little considered. But with the increase of enteric fever and allied diseases and the increased attention paid to the prevention of disease in almost all modernized parts of Europe and North America, this has been discarded and water-carriage substituted ; the only exceptions being towns in which inadequate water supply or inadequate funds have prevented it"

The report then goes on to cite several cases showing the relative effect of hand removal and water removal of excreta on the prevalence of enteric fever both in Europe and America, and proceeds as follows :—

"Complete water-carriage of sewage with biological treatment is, then, the only method which can be confidently recommended in the light of actual results obtained in the greater part of the civilized world, as one from which a reduction in the amount of enteric fever may reasonably be looked for.

"It is strongly urged that a trial of such a system should be made at some cantonment in which enteric fever has been for several consecutive years present in an amount in excess of that in the whole of India.

"It is fully recognized that the introduction of such a system will entail a large initial expenditure, though probably not more than electric lighting, and almost certainly with more valuable results. The enteric fever mortality of the general population of England and Wales has been reduced from 390 per million in 1869 to 93 in 1904 ; but this has only been achieved by a very liberal expenditure of money, a large proportion of which has been spent on sewage disposal, and large sums even on experimental works. There is no reason whatever to hope that similar results can be achieved in India with the present paltry expenditure for these purposes.

"By the introduction of a water-carriage system the present difficult question of the satisfactory disposal of kitchen and wash-house sullage water would be solved, and in some stations this may be expected to assist in reducing malaria.

"The objection will probably be raised that with the introduction of this system in the barracks of British troops the dangers of the old system will still remain in the lines of Native troops and among the civil population of cantonments. In the interests of the Native troops and the civil population themselves, this objection is only too just ; but it must, probably, be left to the enlightenment of a future time to remove. As regards British troops, it will, no doubt, leave open certain possible chances of infection, and to avoid these as far as possible, the sewage from the whole cantonment should be treated by biological methods. This would add but little to the cost. But the weight of trustworthy evidence is entirely in favour of the view that in the great majority of cases the infection of enteric fever is acquired in barracks ; and the figures already quoted show the comparative immunity of those parts of a town which have w.c.'s and sewers as compared with other parts of the same town with pail systems.

"It is recognized that this system, even if accepted in principle, cannot be generally introduced for a long time, and that in small cantonments its introduction would possibly not be contemplated.

"In searching for a second system applicable to these cases, which, while offering the main advantage of that described, could yet be introduced in a short time and at comparatively small cost, the Committee have been guided by the following principles :—

"(*a*) It must be, as nearly as possible, automatic, so as to avoid the personal factor which has so conspicuously failed in carrying out

the multiple manipulations from pan to receptacle, receptacle to cart and cart to trenching ground, which are involved in the present system.

"(*b*) The system must be one which avoids, as far as possible, the access of flies to the excreta in latrine, urinary, or elsewhere, the spillage of sewage matter and the breeding of flies during disposal.

"Of a number of alternative proposals which have been brought before them, some of which have been tried during the last two years on a more or less extended scale, the Committee recommend the following as combining the points which appear to them most essential, in the most practical manner.

"The system* consists of the use of iron pails containing a certain quantity of water to which a volatile deoderant is added for the double purpose of lessening the smell and preventing flies from settling on the excreta. It is not considered practicable to completely disinfect excreta in the pails by chemical means, but experiments which have been carried on during the last two years in eight different stations show that the number of flies in latrines can be very greatly reduced by such means. It is believed that this can be done without hindering the subsequent biological treatment of the sewage.

"As a further means of avoiding the fly nuisance the pails should be made to fit close under the seats, and the lid should be provided with a device for automatic closure.

"Each pail has a tightly fitting lid, and duplicate sets are provided. The pails are removed either once or twice daily on carts, trollies, or trams.

"Urine from urinaries will be dealt with on a similar plan.

"For disposal a biological process with land irrigation of the effluent is recommended. Experiments now being carried on at Meerut show that the plant for this can be put up for from Re. 1 to Rs. 1·8 per head; that the working expenses, except where water is expensive, are not greater than for trenching, and there is every reason to believe that the return obtained from cultivation of the land will give larger profits than are obtained for trenching.

"This can be carried out at no great distance from a cantonment if, as the experiments so far go to show, flies are not bred during the process; whereas the Committee in their first report have expressed the opinion that trenching should not be carried out nearer to the inhabited area than three miles. The expense of removal will in this way be lessened.

"There are now a large number of installations for biological treatment of sewage being worked successfully in India; that at Matunga Leper Asylum, Bombay, after nearly twelve years' trial, has demonstrated the advantages both from hygienic and economic points of view.

"The Committee are convinced that there are no insuperable difficulties in the carrying out of both these schemes, but they believe that success or failure will be largely determined by the way in which the working details, many of which can only be decided by actual experiment, are perfected. They therefore recommend that an engineer and a medical officer, both of whom must have had wide and technical experience of sewage disposal, be deputed to work out the details of the schemes, and to supervise the installation of the plant. For this purpose the individuals selected must be in a position to devote ample time to the question, and be given opportunities of studying existing methods in India."

The Committee lay special stress on the following points:--

(1) The early recognition of cases by bacteriological examinations in doubtful cases, and by the inspection of newly arrived drafts with the object of early recognition of ambulatory cases.

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* It should, however, be borne in mind that while the system is considered a sufficient improvement on that at present in use to fully justify its extended trial, it is not recommended as likely to produce results equivalent to that first proposed.

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(2) The segregation of infected persons and disinfection of clothing, &c., including in the former the orderlies in attendance on cases of Enteric Fever, and in the latter the clothes not only of the patient, but that of his immediate neighbours. The provision of apparatus for disinfection by heat of excreta is also recommended.

(3) The washing of clothes. This in India has always been a great difficulty, there being frequently no provision for supplying clean water for washing or clean storage accommodation.

An important point settled by a Sub-Committee was an official definition of Enteric Fever, which was adopted by the Committee, and which runs as follows :—

> "Enteric fever is a specific, generally continued, fever due to infection by *B. typhosus*, *B. paratyphosus*, and their allies. Typical cases are easily recognized by characteristic symptoms, but atypical cases are common, and must be diagnosed by a systematic process of exclusion. For purposes, therefore, of comparison in methods of prophylaxis every case of continued fever of seven days' duration should be returned as enteric where it is impossible to exclude that disease."

The above shows very clearly the present attitude of Medical Officers of the Army of India with regard to the causation and spread of enteric fever and as an illustration reference may be made to an interesting paper published in the February number of the "Royal Army Medical Corps Journal" by Lieut.-Colonel S. Glenn Allen, of the Royal Army Medical Corps. In this paper it is shown that a very marked diminution both in the admission and death rate from enteric fever has occurred at Umballa coincidently with measures directed almost entirely to the prevention of latrine infection, on lines practically the same as those recommended by the Committee for adoption, in stations where a water-carriage system cannot be introduced. An important part of the system is the organized supervision of latrines in barracks by a special sanitary establishment belonging to each corps. As long as the details of removal of excreta depend so largely, as in the hand removal method they must do, on the punctual and careful attention to detail by people notoriously apt to be careless in these matters, some such personal supervision is essential. The results at Umballa are shown in the accompanying chart "C," which shows the admissions and deaths per 1,000 of strength at this station from 1880 to 1905 inclusive. It is, perhaps, dangerous to argue from a single case; we have too often in the past been deluded by the will-o'-the-wisp of a temporary improvement not to be afraid of the specious *post hoc propter hoc* line of argument, but this much at least may be said, that the results of the work at Umballa are of good augury for the success of the recommendations of the Committee which run so closely on the same lines.

The explanation, therefore, of the gradual decrease in the mortality from all fevers that has marked the past three years is, in the opinion of those best qualified to judge, to be found in the fact during those years the danger has been assumed to lie not only in the water which might possibly be contaminated by excreta, but in the excreta themselves, and that consequently medical officers throughout the country have directed their efforts towards rectifying those defects in the present system of removal of excreta which afforded opportunities for the disease germ to reach the food, air, and water supplies of the garrison.

As regards the year under review, it will be seen from chart "D," the curve giving the admissions and deaths per 1,000 of strength for the past 16 years for enteric fever, that there has been little change as compared with the previous year, but that on the whole the condition, as compared with the years immediately after the war, and more especially with the later nineties, has been decidedly favourable.

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As regards particular stations, we find in the Northern Command that Rawal Pindi, Peshawar, Mian Mir, and Ferozepore suffered more or less severely from this disease, while Umballa, Sialkot, and Nowshera were almost entirely free from it. At Rawal Pindi the disease was present in the latter months of 1905, and continued to persist in the earlier months of 1906. The disease is supposed to have been spread by discharged convalescents, a theory that supports the recommendation of the Special Committee already referred to as regards the isolation of such cases. The disease never attained very serious proportions, but increased slightly during the hot months, being most severe in April, May, June, and July. An improvement occurred in August, and after that only dropping cases one or two a month were reported for the remainder of the year. There were only 6 deaths, as compared with 10 in the previous year and 17 in 1904. In Peshawar the year opened with 3 admissions in January, one of which is attributed to latrine infection, there having been 6 admissions for enteric fever from the barrack bungalow in which the man in question resided in the year 1905. The other two were not traced, but there is just a possibility that one man acquired the infection during his journey up country, though the incubation period of the disease must in that case have been upwards of five weeks. In February, 1 case was admitted, supposed to have been contracted on manœuvres. This was followed by a case in March and 3 in May, April giving no cases. In June, 21 cases were admitted, the outbreak being of an explosive nature, fairly distributed throughout the barracks, but attacking almost entirely members of the Army Temperance Association. The last case of this outbreak was admitted on the 1st July, after which date the disease practically disappeared from the station for the rest of the year.

It is almost certain this explosion was not in any way due to latrine infection, but probably to some infected food supply, though its source was not satisfactorily traced. At first, bazar-manufactured minerals were under suspicion. The Army Temperance Association and Church Institutes were run by natives, and since bazar-made minerals could be purchased cheaper than those manufactured in regimental mineral-water factories, the former were smuggled in for sale.

Against this infection is the fact that no such bazar minerals were ever seized in the Black Watch Institute, yet they had as heavy (or heavier) an incidence as the others.

Samples of these seized minerals were later sent to the Command Sanitary Officer for examination; their acidity was found to be equal to 4·4 c.c. N Na HO per cent.; with this degree of acidity *and* the pressure from CO_2 gas, the possibility of *B. typhosus* surviving is doubtful. The minerals were bulked, and made feebly alkine to Neutral Litmus; one-half was then put through for *B. typhosus* by Hoffmann-Ficker's Method, whilst the other half was done by Willson's Method—Alum precipitation—for *B. coli* as indicative of pollution. Very few micro-organisms grew out, and no *B. typhosus*, *B. coli*, or *B. enteriditis sporogenes*.

The Government Dairy was also reported as being in an "insanitary state," but no details were given.

That the outbreak came to such a sharp termination is probably due to the rigorous disinfection of all latrines and urinals that was practised, in consequence of which the disease was unable to get a permanent footing in barracks, and the original cause having disappeared, the outbreak perforce came to an end.

About the same time, sand for the filter beds was being removed from the Badin Nulla, a short distance below a Dhobi Ghat. The matter was represented, but the M.W.S. deny that any of this sand ever got on to the filter beds. It was evident there was a want of supervision both by regimental authorities and M.W.S. The fact of an incidence of only 2 per cent. on the mean strength, and no other cases in either civil lines or in other parts of the station, to my mind, militated against such a general source of infection as a contaminated public water, or milk supply; yet, it is stated that when this filter bed was put out of action *and* the insanitary state of the dairy rectified, the outbreak closed down. Unfortunately, both these changes were made within a day of each other, so that it could not be definitely decided as to which, or if either, was the delinquent.

Ibid. An investigation into the origin of some enteric fever amongst officers at Dera Ismail Khan was of some interest.

During this investigation it was ascertained that the sweeper to the officer who was first taken ill was also doing duty in the Regimental Hospital.

Though, on enquiry, it had not seemed probable to the medical officer concerned that there had been any cases amongst the Sepoys—a Madras Regiment—on going through the admission book the Command Sanitary Officer found that several Sepoys had been admitted for continuous fever of ten days or over since the regiment arrived in Dera Ismail Khan, a period of about four months.

Though the source of infection through this sweeper could not be made out with certainty, it appeared to me not improbable that this might be the true history of the source of infection in the first case, though it must be admitted, the fact could not be excluded that this officer, having travelled up from Madras by rail, was seized with the commencement of his illness within sixteen days of his arrival in Dera Ismail Khan, and might have contracted it *en route*.

The affected bungalows were all bunched together.

Amongst other possible sources of infection were—

(i) A refuse shoot of the Native City on land within 250 yards of the bungalow, where flies swarmed ;

(ii) The milk supply, which was from a gwala, to the Mess, its supervision being left to mess servants ;

(iii) The water supply from surface wells, which were uncovered and but indifferently protected.

Had either of these latter two been the source, more cases might have been expected to occur amongst young officers in the regiment.

In Meean Meer the year opened with the admission of 8 cases of *enteric fever* in January. This outbreak was started by importation from outside, in all probability from some unascertained series in Lahore. Six of the cases came from the same barrack room or from men in tents who had previously occupied that room. One of the remaining two was connected with the above series by latrine infection, and the remaining case was that of a hospital orderly in attendance on enteric fever cases.

The management of this outbreak was carried out by the Senior Medical Officer on the lines generally adopted in other outbreaks, viz., evacuation and disinfection of the Barrack Bungalow, by accommodating the contacts in segregation tents ; closing and disinfection of latrines and urinals ; temporary two-seated corrugated iron latrines with commodes and enamelled iron pans were provided for the segregated contacts ; sweepers were always on duty to empty the pans, and to sterilize all excreta by boiling, and a daily medical inspection was instituted. As a result, one more case was admitted from the segregation camp, but after the usual incubation period had elapsed, the outbreak came to a standstill.

After this the station was free from the disease till April, but during the hot dry weather a few dropping cases occurred, the largest number, 4, being shown in May. With the advent of the rainy months the disease again disappeared, but one case was reported in October and another in November. The water supply of this station is under suspicion, and a scheme for its improvement has been for some time under consideration. Except for the localized outbreak in January, the other cases seem to have been of ordinary disconnected character that one can hardly hope to escape in a dry and dusty station such as Meean Meer (now changed to Lahore Cantonment), with a certain unavoidable native population. The total deaths in this station in the year were 8, as compared with 2 in the previous year. Ferozepore was comparatively free from this disease with the exception of an explosive outbreak in the months of April and May, which accounted for 17 cases. The dairy supplies were suspected of having been the source of infection, though possibly some of the cases were due to contact. A few dropping cases occurred throughout the remaining months of the year, 10 in all, but of these

only 7 were attributable to causes in the station. The case mortality was small amounting only to about 10 per cent. *India.*

In the Eastern Command Lucknow and Meerut both suffered somewhat severely. In the former station the disease may be considered endemic. It has never been absent from the station practically for years, and the Senior Medical Officer states that no particular cause can be traced for the different cases. In his report of last year, 1905, he states that the arrangement of the latrines and cookhouses is largely responsible. This defect is common to a great many stations, and is one that would be very expensive to remedy. Until, however, it is remedied, the struggle against enteric fever in such stations is very uphill work, and must continue to be so. In plans of future barracks this point will be attended to, and also the equally important point of unnecessary duplication of these accessory buildings. The outbreak in Lucknow showed no particular localization, but was considerably more severe, as is usually the case, during the hot months of the year, when flies and dust combine to facilitate the dissemination of the specific poison.

In the Western Command, *enteric fever* was prevalent at several stations. At Quetta, Poona, Kirkee, and Ahmednagar the number of admissions for this disease was, however, considerably less than in the previous year. In the case of the first two named stations this fact is particularly gratifying, not only on account of their importance in a military sense, but from their long-standing notoriety as "Enteric" stations. At the latter (Poona) the experiment was tried of moving the East Lancashire Regiment out of their barracks during the "fever" season. The experiment met with a certain amount of success, though not so much as was hoped for, it being impossible to entirely prevent communication between the camp, only four miles out of the station, and the station itself. A move to a greater distance than this would, of course, cause considerable difficulty in the question of transport of supplies, &c., to the camp. There was a rather severe outbreak of the disease at Jhansi, which was specially reported on by the Command Sanitary Officer. Though the disease existed in the station throughout the greater part of the year, it was most prevalent in August, about half the total number of cases being admitted during that month. It is noteworthy that during the months of July and August there was a veritable epidemic of flies in the station, and to this invasion the prevalence of the disease is attributed. The absence of an efficient steam disinfector at Jhansi and other stations is commented on by the Command Sanitary Officer. This is indeed a crying want in all the larger stations in the country. To attempt to combat in any efficient and scientific manner a disease, which we know to be so easily conveyed by infected bedding and clothing, without the aid of a proper disinfector, is out of the question. The present makeshift arrangements, which are all that are available, are fair neither to the man who has to fight the disease, nor the Army which suffers from it.

There was no marked epidemic outbreak of *enteric fever* in the Secunderabad Division. The disease prevailed, however, both at Secunderabad and Bangalore. In the former there were 92 cases amongst a garrison (European) of a little under 3,000 men. The Royal Fusiliers at Trimulgherry furnished nearly half the total number of cases, and the months of August and September were those in which the disease was most prevalent. Bangalore showed an increased prevalence of the disease as compared with the previous year, but there does not seem to have been either here or at Secunderabad any one particular cause for this. It may be mentioned that the enormous size of Secunderabad, and the peculiar system of local government at Bangalore (which is not a cantonment but a municipality), make the question of the removal of excreta peculiarly difficult at both places. Bangalore is probably one of the best adapted stations in India for the introduction of a water-borne system of sewage. With the exception of the British Infantry, the remainder of the garrison (the British Cavalry, Field Artillery, and Station Hospital) are very compactly sited on ground with a very fair fall in at least two directions. The usual objections to a water-borne system in India, viz., extreme length of drains and absence of fall, apply less to Bangalore than to any other station. In the Burma Division, as usual, there was no enteric fever. This fact is one which demands attention. To outward

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appearance, the stations in the so-called dry zone of Burma, *e.g.*, Meiktila and Mandalay, present conditions as favourable for the spread of enteric fever as any stations in Upper India. And yet this disease is to all intents and purposes unknown in the country.

Malarial Fevers have always held the highest place as a cause of admission to hospital, though their influence on the Death and Invaliding rates have not been of late years, at least, as important as Enteric Fever and Venereal Disease. It is noticeable that during the years when a considerable force of British troops was engaged in operations in very malarious districts in Burma the invaliding rate from all causes was peculiarly low. As shown on chart "E," there has been a fairly steady and continuous fall in the admission rate from these diseases in the past sixteen years, more markedly since 1898, about which time the "mosquito theory" of malarial infection began first to take hold of men's minds. With the exception of 1900, a year of exceptional rainfall, this fall has been uninterrupted since 1898. This year shows again a slight rise, but this is explained by the fact that here again we have had to deal with a year of unusually heavy and unusually late rains. The problem of Malaria prevention is a complex one. It may be divided into—

(1) The attack on the larval mosquito in its breeding ground.
(2) The attack, or rather the defence, against the adult insect.
(3) The segregation of malarial patients, and their protection from the adult insects.
(4) The defence against the infected native, especially the native child.
(5) The attack on the malarial parasite in the blood by the administration of quinine to healthy men during the "fever" season.

These problems are, of course, the same in India as elsewhere; the peculiar conditions of Indian life, the prejudices of the natives, the too great dependence of the white European soldier on the assistance of native menials, usually of the lowest caste, the necessity in many parts of irrigation if the situation is not to return to the condition of a desert, render the practical solution of the problem far from simple. As regards the attack on the larval insect in his breeding grounds, much good work has been done by the institution of the so-called "mosquito brigades." These brigades consist of a varying number of natives, with a few European supervisors, all under the immediate command of a specially-selected Medical Officer. The work is commenced by a course of instruction in the habits of mosquitoes, their breeding grounds, and the appearance of the larvæ, with a description of the best method of attacking these last. The station is told off into several areas, over each of which a European is placed to supervise the work of the native establishment detailed for the area. Breeding grounds are then sought for and, where found, destroyed, as may be done in the case of small puddles, or collections of water in empty tins, &c., or, if too great extent to be dealt with in this manner, rendered uninhabitable by the larvæ by the application of oil, tar, or other suitable larvicide to the water. The medical officer visits the various areas periodically, and advises on the solution of any difficult question. The exact procedure varies at different stations, but the above may be taken as fairly typical. The personal equation of the medical officer is, of course, of great importance. To be properly performed, the work is hard and continuous, and that at a season of the year, the end of the rains, when physical vigour is at its lowest ebb. At many stations the local conditions hamper the work considerably. Thus, at Bangalore the surface of the ground is covered in places with large masses of granite. This rock has a quasi-laminated structure, and the bosses of rock peel in layers, very much like an onion. It follows that on every boss of rock there will be found a ledge, where the outer layer in part still remains. In this ledge a little water collects after every shower, and these minute and innumerable puddles may often be seen swarming with the larvæ of the Anopheles mosquito. At other stations the ground is cut up by irregular and uneven nullahs, dry for the greater part of the year, torrents during rain, and a string of stagnant pools after it. A particularly troublesome nullah of this nature exists at Rawal Pindi, in the closest *vicinity to the* Artillery Barracks. It will be readily guessed from the

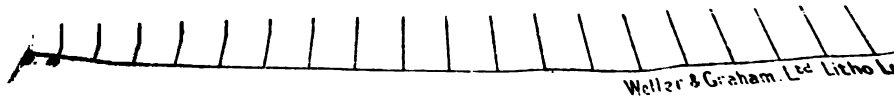
above that the labours of the Medical Officer in charge of anti-malarial measures are often like those of Sisyphus, and that he may often see the result of weeks of work ruined by a single shower. The necessity of irrigation has been alluded to. All through the Punjaub it may be said that without irrigation there can be no cultivation. An unirrigated station in July is an absolute wilderness, infinitely depressing, and the play-ground of perpetual dust storms. Irrigation is a necessity; it only remains to minimise the evils inevitably associated with irrigation as far as may be. This can be done to a great extent by substituting well irrigation for canal irrigation. In the former, every cultivated plot of ground is irrigated from a well situated in or close to the patch. The leading runnels are small and of no great length, and only filled while the well is actually at work. It is quite possible, therefore, with a little care to prevent the accumulation of stagnant water in the runnels when not actually in use. With canal irrigation it is almost impossible to avoid this. The leads from the main canals are long, and of considerable size; in the grass on their banks, the culverts which cross them, the leaves which blow into them and accumulate at every piece of dead water, the anopheles can find the shelter necessary for the protection of their eggs and larvæ. Again, whereas in well irrigation every drop of water has to be laboriously pulled up from some depth, whether by means of bullocks or human labour, in canal irrigation all the labour necessary to flood a patch is that necessitated by the pulling up of a small sluice gate. It is obvious that the excessive flooding of patches is less likely to occur under the former system than under the latter. The defence against the adult insect is a question of mosquito curtains and mosquito proof-houses. The former have been tried in barracks and hospitals in various forms, but their success has not been striking. If every bed in a barrack room or hospital ward be provided with nets the size of those in use in private houses, the obstruction to ventilation is so great that the consequent discomfort and risk of injury to health is almost as great as if no curtains at all are used. If the nets are reduced in size to avoid this the sense of confinement is insupportable. In a great many stations in Upper India, in every station it may be said north of Calcutta, and east of Rajputana, punkahs are a necessity of existence for five or six months in the year. Mosquito curtains and punkahs are incompatible terms, and there can be no doubt that if the choice between them has to be made, every white adult in, say, Meean Meer in July, would vote for the punkah. The risk of fever from a mosquito bite is better than the certainty of a sleepless night from heat, with an equal risk of death from heat-apoplexy. The real defence against the adult insect lies in mosquito-proof houses and electric punkahs. These are expensive, especially in first cost, and the fine mesh of the mosquito proof gauze used, is very apt to allow of the accumulation of dust and other objectionable matters. This difficulty can, however, undoubtedly be got round, and, as already stated, it is in this direction that protection against the adult insect must be found. The segregation of patients suffering from malarial fevers and their protection by means of mosquito nets is already largely practised, though in small hospitals it is apt to cause administrative difficulties. The infected native, and especially the infected native child, are probably the greatest dangers to which the European is exposed. Much has been done of late years to diminish the excessive number of native followers employed, many of them in unofficial duties in barracks. Punkahs operated by human agency necessarily, however, entail the presence of a certain number of natives in the closest proximity to the sleeping-rooms of the soldier. Here, again, the introduction of electric or other mechanical forms of punkah is most desirable. The native child can only be kept away by removing all native villages and huts from the vicinity of barracks. In any case this must be attended with great difficulty, owing to the possession of vested interests by the villagers. In almost every old cantonment, some collection of huts will be found in the closest proximity to barracks. Native followers' lines are also apt to be a danger in this respect. There is no doubt that much can be done, as, indeed, much has already been done to diminish the dependence of the soldier on the ministrations of the native, and there is no doubt that such steps will lead to greatly increased diminished danger of disease, and not of malarial diseases only. The

prophylactic use of quinine is of the greatest value, especially in places where barracks are defective or troops under canvas. The most successful method has been found to be the administration of somewhat large doses of the drug, 10 to 15 grains, on two consecutive days of the week. It is probable, however, that used in this way, six doses a month are in general sufficient. The nauseous taste of the drug, and in some individuals its unpleasant effects on the digestive system, are objections to this prophylactic use of quinine, but the majority of men can stand it well.

The current year was marked by a severe outbreak of malarial fevers in the north of the Punjaub, and also in Rajputana (Nasirabad), Bundelkhand (Jhansi). The stations most affected in the Punjaub, were Nowshera, Peshawar and Rawal Pindi. Umballa, Sialkot, and Lahore Cantonment, also suffered, though to a less extent, and even Jullundur, a station not usually considered malarious, was affected. In the northern region of the Punjaub, where the three first-named stations are situated, the outbreak commenced in August, but the cases were comparatively few in number, the highest ratio being observed in Rawal Pindi, with an admission rate of about 2·5 per cent. of strength. In September, a considerable increase was observable in all three stations, Peshawar now leading with over 7 per cent., Rawal Pindi being about 5, and Nowshera still only 2 per cent. The next month, however, showed a distinctly worse state of affairs, the respective ratios being in the order just given, in round numbers 15, 14, and 11 per cent. In November, Rawal Pindi showed a slight improvement, but Peshawar and Nowshera gave the high ratios of 18 and 30 per cent. respectively. In December the disease showed signs of diminishing, though the high ratios of 19 and 16 per 100 were still given by Nowshera and Peshawar. The type of disease at Peshawar was also particularly severe, resembling the notorious so-called "Peshawar Fever," marked by choleraic symptoms, which have not been noted for some years. Throughout this part of the Punjaub the civil population was similarly affected. The following appeared in the "Pioneer" newspaper. A Rawal Pindi correspondent writes: "Pindi is still suffering under a veritable wave of fever of a most virulent type, and labour of any sort is scarcely procurable. Large fields of crops in the vicinity of the town stand uncut, long since over ripe, bearing silent witness to the melancholy fact of the prevailing sickness!"

Rawal Pindi, though severely affected, was not so bad as 1903, but the type of fever was exceptionally malignant clinically, so far as can be judged, more so than in any other station in the Command. In blood films from troops stationed here it was a rarity to find benign Tertian parasites, nearly all positive films contained malignant Tertian parasites and crescents. There appears no reason to account for this severe incidence beyond the bold fact that it was a "bad" year; mosquitoes were not unusually prevalent, the Mosquito Brigade had been active; certainly, the rains lasted on later than usual, but in 1905 there was heavier rain in late September than in 1906, yet 1905 was phenomenally a "good" year. Amongst the units that suffered most heavily were the 67th Battery Royal Field Artillery and 10th Royal Hussars; the latter regiment came up from Mhow in October, and went into barracks vacated by the 9th Lancers, who had begun to suffer from malarial fevers.

Nasirabad also suffered severely from malarial fevers during 1906. There was a slight outbreak in May, during which month 20 cases were admitted, a ratio of about 3 per cent. on the total strength. It was not, however, till September that the disease began to show itself really seriously. In that month about 13 per cent. of the garrison were affected, and in October about 15 per cent. In November there were over a hundred admissions from this cause, and a ratio per cent. over 15. There was a considerable fall in December with the advent of the cold weather, but even in that month nearly 10 per cent. of the garrison suffered from malaria. Jhansi also showed a high admission rate for this disease. Here the outbreak commenced rather earlier, August furnishing an admission rate of over 7 per cent. This was followed in September by 11 per cent., and in October a further rise to 26 per cent. occurred. In November there was a slight fall to 21 per cent., and the advance of the cold weather reduced this in December to about 12 per cent. In both these stations this outbreak was probably due to late and excessive rains, the surface of each station lending itself readily to the *formation of small* puddles.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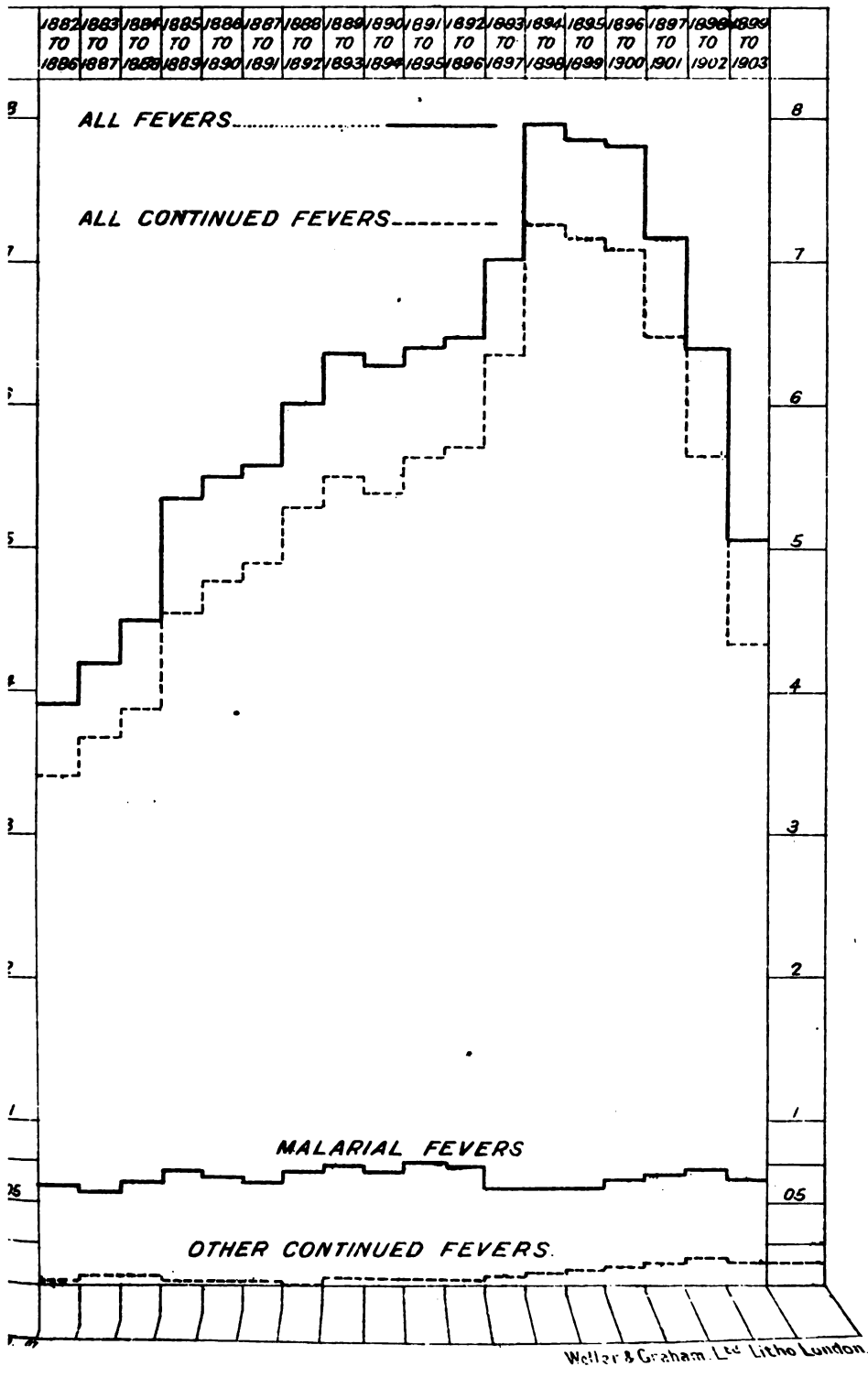
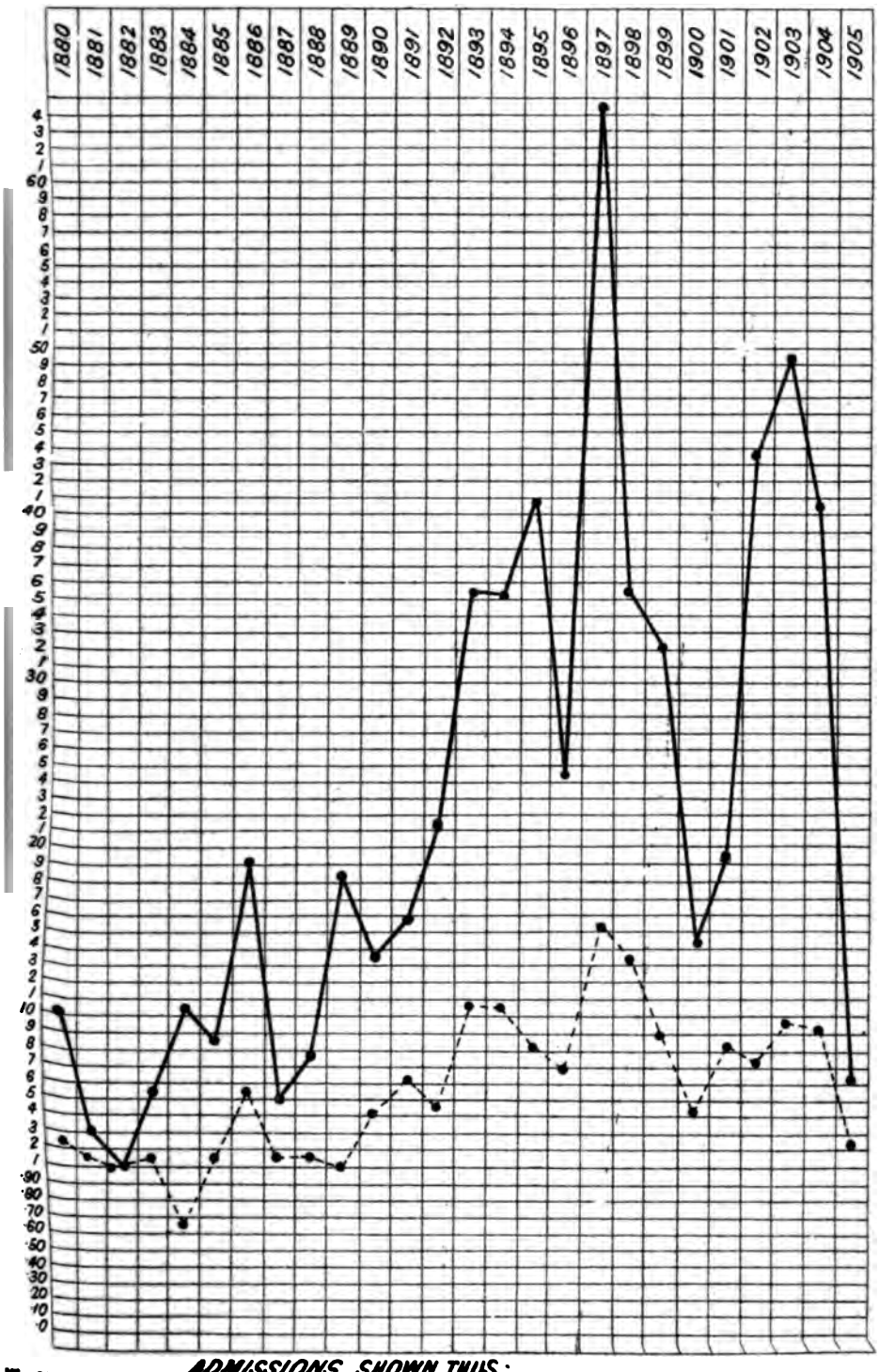
-CHART SHOWING DEATHS PER 1,000 OF STRENGTH BY JINQUENNIAL PERIODS FROM ALL FEVERS, ALL CONTINUED EVERS, MALARIAL FEVERS. AND OTHER CONTINUED FEVERS AMONG BRITISH TROOPS SERVING IN INDIA, 1882-1903.



"C-CHART" SHOWING ADMISSIONS AND DEATHS FROM ENTERIC FEVER AMONG BRITISH TROOPS SERVING AT AMBALA FOR PERIOD 1880 – 1905.

RATIO PER 1,000 OF STRENGTH.



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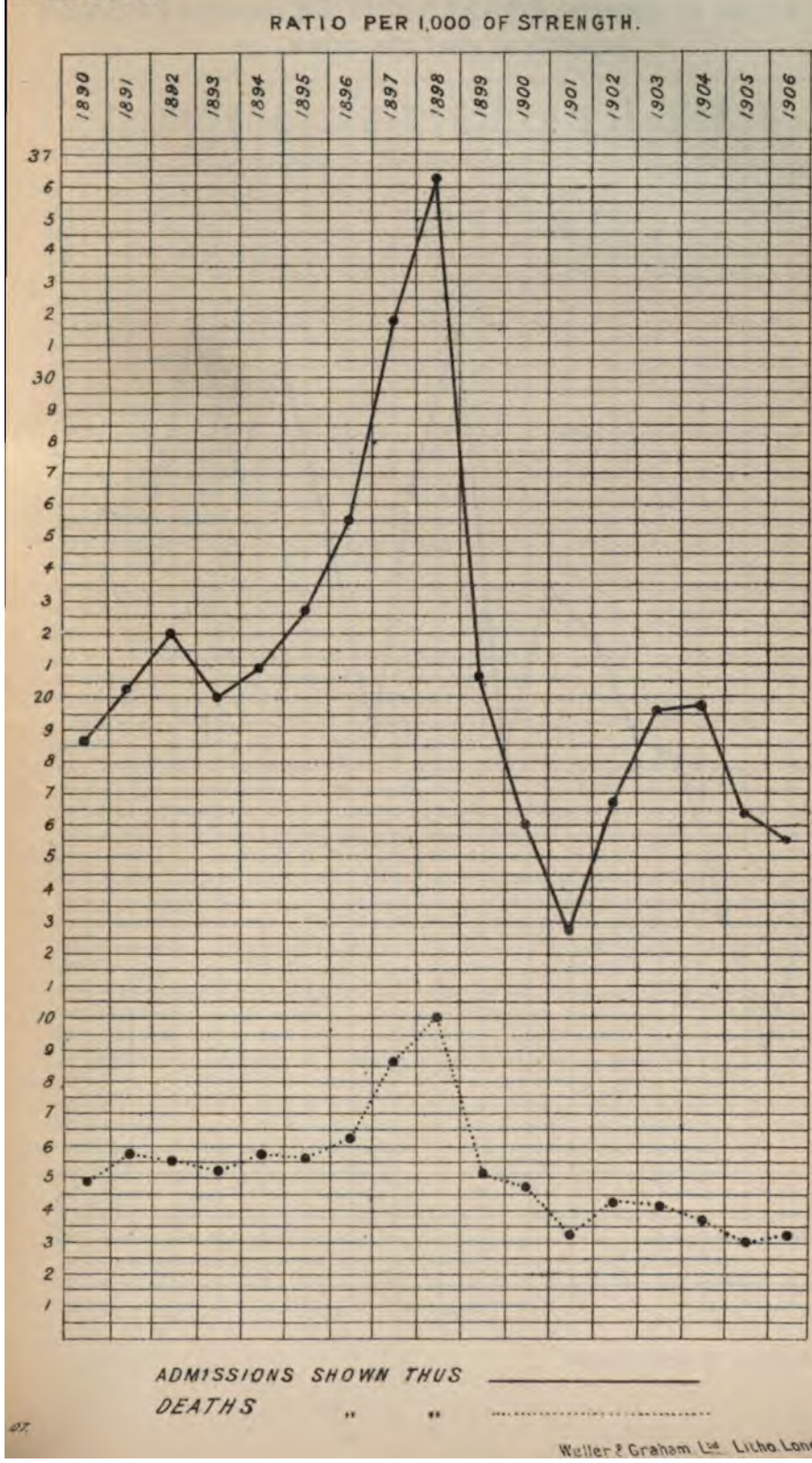
"D" CHART SHOWING THE SICKNESS AND MORTALITY FROM ENTERIC FEVER AMONGST BRITISH TROOPS SERVING IN INDIA.



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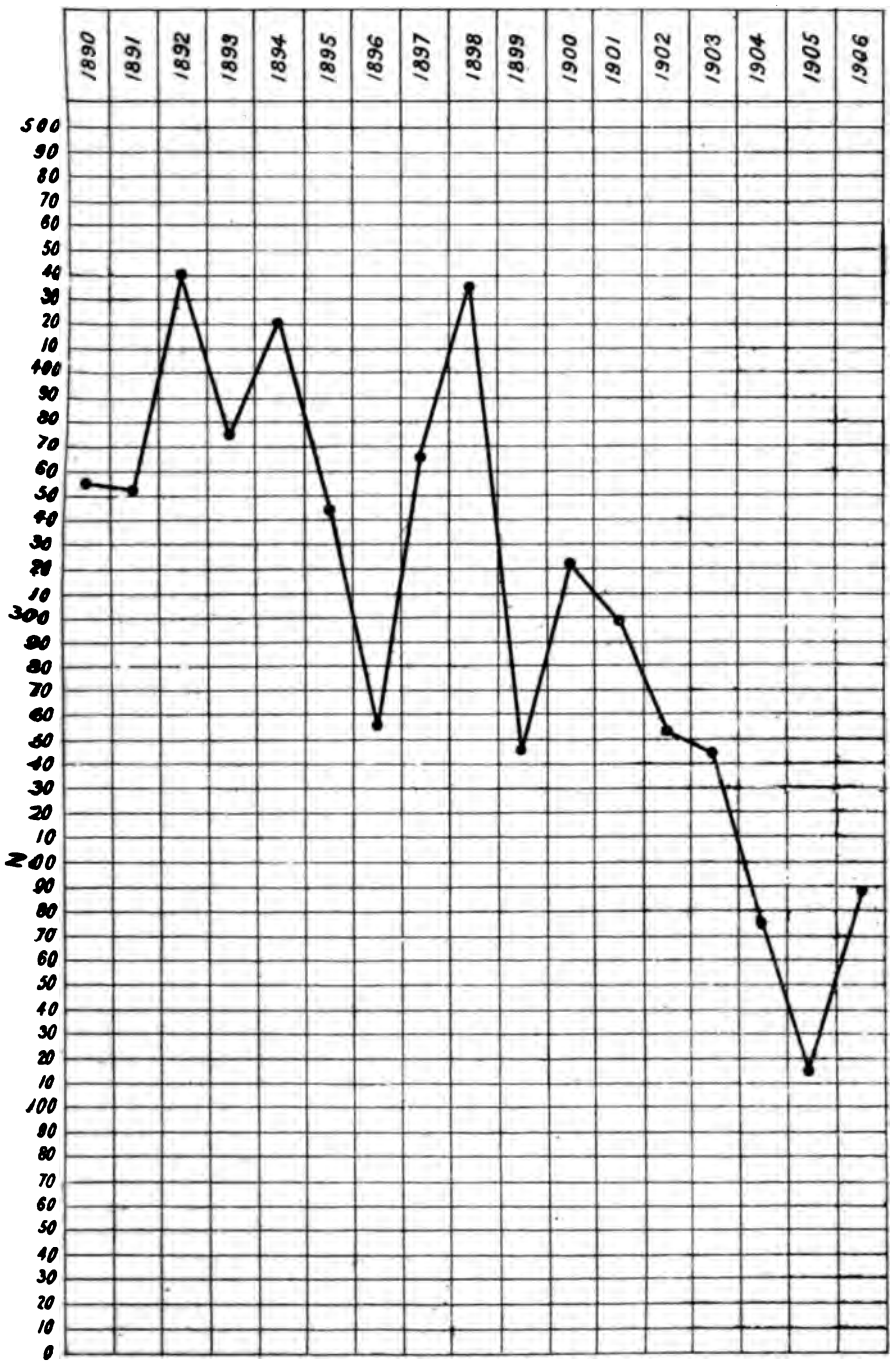
"E" CHART SHOWING THE SICKNESS FROM MALARIAL FEVERS AMONGST BRITISH TROOPS SERVING IN INDIA.

RATIO PER 1,000 OF STRENGTH.



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VIII.—ON THE HEALTH OF THE TROOPS SERVING IN BERMUDA, JAMAICA, WESTERN AFRICA, ST. HELENA, MAURITIUS, CEYLON, SOUTH CHINA, NORTH CHINA, AND STRAITS SETTLEMENTS.

THE fifth group of stations into which the Army has for the purposes of this Report been divided consists of those stations which from their small individual size and their scattered distribution are not capable of conveying any useful epidemiological information, individually or collectively.

This group may be divided into sub-groups, as follows :—The Atlantic sub-group, or West Indian Islands ; the West African sub-group, including the West Coast of Africa and St. Helena, the Indian Ocean sub-group, comprising Ceylon and Mauritius ; and the Further Eastern sub-group, comprising the Straits Settlements, South China and North China ; and it is under these sub-groups that it is proposed to consider them. To begin with the Atlantic sub-group. This comprises two islands, viz., Bermuda and Jamaica. Of these Bermuda, with a garrison of 1,331, is the most important, and falls first for consideration. Here there was no marked prevalence of disease. The total constant inefficiency from sickness did not amount to more than 2½ per cent., and of this nearly one-sixth was contributed by *venereal disease* alone. This showed a slight fall as compared with 1905, and a slight rise as compared with the previous decade, but in neither case are the figures large enough to form basis for useful argument.

As regards preventable diseases, *enteric fever* accounted for 10 admissions, of which 8 occurred in August or the later months of the year. This disease is endemic amongst the civil population of the island, and though only 50 cases were notified, it is probable that a considerably larger number escaped notice. Careful precautions were taken to prevent the occurrence or spread of the disease, and considering, as already stated, the endemic prevalence of this disease amongst the civil population of the island, this result must be looked on as satisfactory. The precautions taken may be summed up as follows :—Careful inspection of the places of entertainment frequented by the soldier when outside barracks, careful inspection and attention to latrines, and, perhaps more important than all, a careful watch on all cases of doubtful fever. Directly a positive diagnosis was made, the section occupying the same barrack room was immediately isolated, and forbidden to enter the regimental institutes for eleven days. This recognition of the fact that whatever the channel of communication of this disease in any particular case may be, the ultimate reservoir from which it always starts is the human body is most practical and valuable. There has been a steady decline in this disease since 1902, and when it is taken in conjunction with *simple continued fever*, which has practically been non-existent during the year under review, the decline has been most marked. The facts may be roughly stated as follows :—The admissions for these two diseases were in 1903 about 87 per cent. of those in 1902, in 1904 92 per cent. of those in 1903, in 1905 32 per cent. of those in 1904, and in 1906 one-half those in the year previous. The present low rate cannot, therefore,

be looked on as a sudden and possibly accidental occurrence, but as a term of a steadily falling series. The Sanitary Officer notes that *diphtheria* must be looked on as a new factor in the health condition of the Command. Fortunately, however, as the children of the military population do not frequent the same schools as those attended by the children of civilians, it is hoped that the disease may be kept out of barracks. *Malarial fevers* were practically non-existent, but the Sanitary Officer notes that the *Stegomyia fasciata* forms a large percentage of the mosquito population of the island. Since this insect is known to be the carrier of the germ of yellow fever, its presence is a point well worth watching. *Tubercle of the lung* was rather prevalent, but this must be looked on as accidental, the disease not being prevalent amongst the civil population. Three out of the six cases admitted for this disease showed an inherited tendency.

No other disease occurred in sufficient number to merit special attention and the Sanitary History of the year seems to have been one of steady sanitary supervision, and instruction in sanitary matters to officers and men. Fortunately no heroic measures were demanded.

As regards Jamaica, a general statement only can be made, that the health of the troops was on the whole good, and the sanitary progress satisfactory. The detailed reports were in course of preparation at the time of the disastrous earthquake, and were destroyed in that catastrophe.

The stations of St. Helena and West Africa come next to be considered. The former was abandoned in October as a military station, and with an annual strength of only 129, it is obvious but little can be learned. There were no cases of preventable disease, and what disease occurred was of an insignificant nature. There were no deaths in the year, and only three men invalided out of the service. In view of the anticipated abandonment of the island, it is obvious that no important sanitary works could be undertaken.

The garrison (European) of West Africa is little more important than that of St. Helena, having an average strength for the year of only 232. One-half of the total admissions, and nearly one-half the number constantly inefficient from disease suffered from *malarial fevers*. *Dysentery* was practically absent, and there was no *enteric fever*. It is therefore malarial fevers that we have chiefly to consider when discussing the medical history of this Command. Considerable care was taken in the examination of these cases. From March onwards, the blood of every man coming to hospital at Tower Hill with fever was searched. Of the 387 men examined, 172 had the Malarial parasite in the peripheral blood; and of these 171 were of the malignant Tertian variety, none of the benign Tertian. The malignant Tertian form of the parasite then is by far the more common. That it is a malignant form of the parasite is undoubted. The red corpuscles are small and frequently crenated. The parasites take the form of small, sometimes minute, rings, each ring having two or three dots of chromatin. Often two, and occasionally three, rings are found in one corpuscle. Many corpuscles in one field of vision are seen to be infected. No intermediate forms are seen between these rings, and the crescents that are occasionally met with. There are, moreover, many interesting points to note, if a comparison be made, between the malignant Tertian fever of Sierra Leone and the malignant Tertian found in India, or at any rate in the Western Command of India. These points are as follows :—

(1) It is comparatively yielding to quinine.

(2) When treated early, it is the exception to find crescents in the peripheral blood. All the cases having malignant rings in the blood were re-examined at intervals for crescents, and out of 171 cases so examined, in 13 cases only were the crescents found.

(3) Of those comparatively few cases, in which crescents were present, in only a small proportion did the crescents persist in the blood under treatment. In quite two-thirds of the cases the crescents disappeared under quinine.

On these grounds it seems reasonable to suppose that we have in Sierra Leone a different species of malignant parasite to deal with than the

one commonly met with in the west of India, and such is generally believed to be the case.

No cases of benign Tertian were seen and only three of Quartan, of which two were found in native children.

Besides the soldiers who were examined a considerable number of natives were also seen. In one native village in the Protectorate, situated on a swamp, the blood of every native infant examined contained the parasite—either the malignant Tertian or a mixed infection of Quartan and Tertian.

Fatal Cases of Malaria.—There was one fatal case (not including Blackwater Fever) during the year. It occurred in a European gunner. Smears and sections taken from the brain and spleen showed a tremendous invasion by the malignant Tertian parasite, the capillaries being choked with Malarial pigment and rosettes.

Mosquitoes.—The mosquitoes conveying Malaria here are the *P. Costalis* and the *M. Funesta.* Major F. Smith, D.S.O., R.A.M.C., found another anopheline—a new species—but this seems to be rare. Anopheles were found at the beginning, during, and at the end of the rains in the hospital, barracks, and guard rooms, but they always had to be carefully searched for. They were always easily obtained from the native dwellings in the town. Anopheles' larvæ were found in pools in the rocks in the valleys adjacent to Freetown, and in the low-lying rocky situations near the shore. None were found during the dry season, at which time, too, it is exceedingly difficult to get anopheles mosquitoes anywhere except in the native dwellings.

Mosquitoes are also found breeding in empty bottles and tins in and around barracks.

These remarks refer partly to native troops as well as European troops, but the importance of the disease to the Army throughout the world justifies their inclusion. *Venereal diseases* as a class were considerably more prevalent than usual, there being an excess over last year of nearly one-half, and over the previous decade of much about the same proportion. The other diseases do not merit special remark, and the sanitary work consisted of the smaller uninteresting details so necessary to the man on the spot, but so uninteresting to the world in general. It is fortunate that no great measures were needed, the sanitary conditions being on the whole very satisfactory.

The third sub-group comprises the stations in the Indian Ocean, viz., Ceylon and Mauritius. The garrison of Ceylon consists of 1,125 men, distributed amongst Colombo, Candy, Newera Elliya, and Diyatalawa. The Infantry of the garrison remain one-half of the year at Colombo, spending the remainder of the year at Diyatalawa, but towards the end of the year the battalion of British Infantry was withdrawn, its place being taken by the 75th Carnatic Infantry from Mauritius, a regiment of Madras Infantry. Newera Elliya is only used as a sanitorium, Candy being a detachment station. As regards preventable disease, *rubella* caused 54 admissions, chiefly amongst the men of the Worcestershire Regiment at Colombo. They conveyed the disease, however, with them to their training camp at Diyatalawa on their moving there. None of the cases were serious. *Enteric fever* caused 9 admissions, about twice as many as during 1905, and slightly over the average for the decade. Six of these cases originated at Diyatalawa, and were attributed by the Medical Officer in Charge there to drinking impure water from streams when out at field days. It may, however, be at least surmised that the conditions of camp life, and the greater difficulty of regulating and looking after latrines by that mode of existence, had something at least to say to this distribution. The death rate was very high, amounting to more than half of the total. This would almost seem to point to the fact that some of the cases of *simple continued fever*, which, however, were rather less than last year, may have been enteric fever. *Venereal disease* showed a considerable diminution (nearly one-half), whether we consider last year's figures only or those of the previous decade.

Malarial fevers were unimportant, being about the same as last year, but only one-quarter as prevalent as during the previous decade.

Referring to Sanitary matters, there are one or two interesting questions which may be discussed. The first is the installation of the filters at Colombo. These were of three patterns—a Pasteur Chamberland battery installation, a Brownlow filter, and an earthen reservoir filter of the Berkfeld type. The first is installed on the delivery taps of the Municipal Water Supply in the Galle Face Married Quarters. It is the opinion of the Sanitary Officer that they have worked satisfactorily. Further reports will be watched with interest, for it must be remembered that Indian experience is absolutely opposed to the use of these "battery" installations owing to the difficulty of preventing deterioration of the rubber washers in hot climates. The Brownlow filter is a Berkfeld filter candle worked under pressure by means of a pump. Six of these are in use at different places. Here the difficulty connected with the rubber joint is noted, and it is stated that the water must be free from sediment and the cleaning regular. The Sanitary Officer concludes: "They are, in fine, handled by skilled and sympathetic workers." This is, of course, the whole *crux* of the filter question; given a "skilled and sympathetic worker," and almost any system will give good results. In his absence, and how often that occurs we in the Army have only too much reason to know, the best system will fail. As to the third form, this is an ordinary domestic type of filter, and suitable for issue to married quarters.

The other important point is the abatement of what is termed the "Lake Fly Nuisance." This nuisance seems to depend on the existence of the lake, which at present receives a great portion of the sewage of the town. This fly has been proved, experimentally, to be a carrier of the *Bacillus coli*, and its presence renders some at least of the barracks, notably the ground floors of Quarters "A" and "B" Blocks, Galle Face Quarters, almost uninhabitable. Unfortunately, any scheme for the total reclamation of the lake seems to entail great expense. The Sanitary Officer is in favour of a partial reclamation of the lake, with the dredging of a central canal whereby the remainder of the waters could be discharged into the sea.

The troops at Mauritius are distributed among Port Louis, Phœnix Vacoas, and Curepipe. The latter three are of the nature of permanent camps, and are all at an elevation of about 1,300 to 1,800 feet above the sea. The most important causes of inefficiency at Mauritius are *malarial fevers*. These account for about one-seventh of the total number constantly sick, and for about one-fifth of the admissions to hospital. The greatest incidence of this disease is amongst the troops stationed in Port Louis, but there is considerable decrease in the year under review, as compared with the previous decade, and especially with 1905. The difference in total inefficiency is as one to three in the former case, and as one to four in the latter. This is due, as regards the comparison with 1905, to the fact that in that year the forts at Port Louis had to be kept constantly manned during the passage of the Russian Fleet towards Japan. The prevalence of the disease in Port Louis is attributed to the prevalence of mosquitoes, favoured by the presence of stagnant streams and the overgrowth of bush and trees on the banks, and to the close proximity of a highly infected native population.

Dysentery was prevalent throughout the year, but was of a mild nature, and more prevalent amongst the native troops (whose statistics are not included in this volume) than among the Europeans. It was noted that in one Corps (the Carnatic and Madras Infantry Battalion) in which the water was boiled, the incidence of this disease was about one-third of that in other Corps similarly situated. *Enteric fever* was very slight during 1906, only nine cases occurring amongst the European troops, rather under one-quarter of the number admitted for this disease during the previous year, and less than one-half that for the previous decade. There were no admissions for the plague amongst European troops, and only one amongst the native troops. This disease may now be considered to be endemic at Port Louis between August and December. Every precaution is taken to keep the troops in the neighbourhood of infected areas from associating with the civil population. The one man who suffered was found afterwards to have

broken out of barracks, and visited a badly infected quarter. In this station sanitary progress seems to have been steady, and very largely in the direction of drainage and clearing away obstructive bush. There are no very salient points to notice.

The strength of the garrison in South China is 1,525, stationed in, or in the vicinity of, Hong Kong. More than one-fifth of the admissions from all causes were due to *malaria*, which were accountable also for about one-fifth of the total inefficiency. These diseases are most prevalent during the months from August to January. The malignant Tertian variety of the parasite was discovered in 139 out of 369 of the cases whose blood was examined, in six of these being associated with the Simple Tertian form. This latter was, in addition, present alone in 134 cases, and once in connection with the Quartan parasite. The Quartan parasite was found in eight cases only. As regards the preventable diseases, *enteric fever* accounted for only one admission, but there was proof in this case of importation from elsewhere. *Dysentery* was rather more prevalent than usual, in consequence of a localized outbreak occurring amongst the Royal Engineers at Murray Barracks. This was traced to their using dirty receptacles for the storage of drinking water. *Venereal diseases* showed, as a whole, a slight decrease, though this was not the case in all forms of the disease. The decrease is in any case too small, as compared with 1905, to be useful as an argument if it stood by itself. It is noteworthy, however, as the lowest term of a series which dates from 1897. In that year the admissions per 1,000 from all forms of venereal disease were 668·4 per 1,000, in the year under review they had, as the result of a steady fall, almost unbroken in its character, come down to 160 per 1,000. Viewed in this light, the figures are distinctly encouraging. There was no great sanitary work carried out, and the line on which future work must undoubtedly proceed is that of Malaria prevention.

The strength of the troops stationed in North China was 500, distributed amongst Wei-Hai-Wei (up till 31.5.1906), Tientsin, and Pekin (Legation Guard). The most fruitful cause of inefficiency was *venereal disease*, which accounted for nearly half the total number constantly sick. There were no cases of *enteric fever*, and the other preventable diseases were of trivial importance, none of them resulting in death. There was no sanitary work of importance done during the year.

The Garrison of the Straits Settlements is posted at Singapore, and consists partly of Europeans and partly of native troops drawn from the Indian Army. The health of the former has shown considerable improvement during the past four years, the number of men constantly inefficient from sickness, having fallen from 75·94 to 42·19 per 1,000 in that period. The number of deaths has in the same time fallen from 14·7 to 4·5 per 1,000. This state of affairs is highly satisfactory, and as regards the numbers constantly sick is due chiefly to a reduction in the amount of *malaria*. Thus while in 1903 as many as 814·3 cases of malaria were admitted per 1,000 of strength, the number admitted from the same cause during 1906, amounted only to 134·8 per 1,000. The decline in the death-rate is not to be accounted for entirely by the decline in malaria, but is due to general improvement in the sanitation of the station. The health of the native troops has not been so satisfactory, there having been an increase in the admission rate both for malarial fevers and for dysentery. During the latter half of 1906, however, there was a reduction of 66·67 per cent. in the number of cases of malarial fever among the Asiatic troops at Fort Canning, as compared with the first half of 1906, and this satisfactory result is chiefly due to the prohibition of cases of malarial fever being treated in barracks, where the patients spread the disease to their comrades, through the agency of mosquitoes, the carriers of malarial infection from man to man. Since July, 1906, all non-commissioned officers and men suffering from malarial fever have been admitted into hospital, and, as far as practicable, isolated by themselves at all stations in the Command. In consequence of this commonsense precaution, there has been a very considerable reduction in the number of cases of malarial fever throughout the Command, and especially has this been the case at Blakan Mati, Pulau Brani, and Fort Canning, where, *prior to* July, 1906, a large proportion of the cases of

malarial fever were treated in barracks. In addition to the isolation of the patients in hospital, since July, 1906, quinine in full doses has been administered to all malarial fever patients, on two consecutive evenings weekly for one or two months, after their discharge from hospital convalescent; a considerable extent of jungle has been cut down or uprooted; and several pools of water, disused wells, and swampy ground, have been filled up with earth, to prevent the breeding of mosquitoes. Considerable sanitary improvements, however, are still required to prevent mosquitoes breeding in the vicinity of barracks.

Dysentery has been most prevalent among the troops stationed at the Alexandra Barracks, and is attributed by the Senior Medical Officer to insanitary latrines and wells for drinking water. There has, however, even here been a slight improvement during the current year, especially if we compare it with 1905. Thus in the latter year there were 142 admissions per 1,000 of strength for dysentery, while in 1906, there were only 37 admissions per 1,000. The provision of Singapore Municipal piped water has been sanctioned, and with its introduction, it is hoped that this disease will become less prevalent.

As regards European troops the most common cause of inefficiency, after malarial fevers has been venereal disease. Probably the best method of checking these diseases would lie in warning the men to avoid the lower parts of the Bazar, and pointing out the dangers of consorting with the women who live there.

There were no other important causes of inefficiency in the station.

IX.—ON THE HEALTH OF THE TROOPS ON BOARD SHIP.

The strength of troops on board ship during the year 1906 was, altogether, 73,065, over 28,000 proceeding from home to foreign stations, 26,000 from foreign stations homewards, and the remainder sailing between different foreign stations. The voyages being all of comparatively short duration, the above strengths, when reduced to annual averages to compare with the rest of the service, fall to 1,610, 1,574, and 658 respectively. The actual figures are, however, of interest as showing what a considerable number of men of the British Army are at sea during some portion of the year.

The diseases to which men are liable during trooping voyages vary naturally with the direction in which the voyage takes them, and with the port or land of departure. Diseases, except those of a trivial nature, due to actual sea-faring conditions, are in modern troopships practically unknown. The diseases of board-ship life are, therefore, in most cases the diseases of the land from which the men start. Thus, amongst the men proceeding abroad from home nearly 40 per cent. of the total admissions to hospital on board ship were due to *venereal diseases*, and 5 per cent. to *scabies*. On the inter-colonial voyages the percentage of admissions due to *venereal diseases* fell to 31 per cent., and on the homeward voyage to 21 per cent., while the admissions due to *scabies* were fractional. On the other hand, whereas the homeward voyages gave a percentage admission rate due to *malarial fevers* of 20 per cent., the inter-colonial voyages gave one of 15 per cent., and the outward bound one of 5 per cent. only. These two classes of disease mark the two extremes of variation, but naturally the so-called tropical diseases, *e.g.*, dysentery, showed a greater prevalence among the men returning home than in those proceeding from one foreign station to another, and even more than amongst those sailing abroad for the first time.

Other forms of disease show little variation. Thus in respiratory diseases, with the exception of bronchitis, there is practically no difference between the voyage out and the voyage home. It is noteworthy that on inter-colonial voyages the incidence of diseases of this class is very much less than on voyages out or homewards, probably because the troops are not on these voyages exposed to such variations of temperature. Thus, the total number of admissions for this class of disease on outward bound ships was, roughly, 38 per 1,000, on homeward bound ships nearly 60 per 1,000, and on ships proceeding from one foreign station to another only 13 per 1,000. The difference between outward bound ships and those bound for home was entirely in the incidence of bronchitis, but the difference between these classes and the third or inter-colonial class was due to a decrease in all the members of the group. Digestive diseases showed an increase in the homeward bound over the outward bound, most of this being probably due to the results of tropical service. The other causes of admission to hospital on board ship were of a trivial nature, and do not call for especial remark.

TABLE I.

United Kingdom.

Showing the AVERAGE STRENGTH, ADMISSIONS INTO HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in the UNITED KINGDOM during the YEAR 1906.

Average Sick Time to each Soldier ... ... 9·07
Average Duration of each Case of Sickness ... 20·32

Average Strength { In Annual Returns .. 113,532 / Including Men Detached.. 124,412

Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number Constantly Sick.
Cow-pox	364	—	—	10·39
Chicken-pox	7	—	—	1·84
Measles	85	—	—	5·10
Rubella	23	—	—	1·22
Scarlet Fever	101	4	—	13·72
Influenza	2,041	1	—	65·70
Mumps	97	—	—	5·34
Diphtheria	59	—	—	3·91
Cerebro-spinal Fever	2	1	—	·10
Simple Continued Fever	76	—	—	3·42
Enteric Fever	73	11	—	12·83
Malta Fever..	33	—	9	4·23
Epidemic Diarrhœa	1	—	—	—
Dysentery	40	3	4	3·93
Beri-beri	4	—	—	·24
Ague	390	2	4	19·02
Remittent Fever	8	—	—	·67
Erysipelas	38	1	—	2·26
Pyæmia	5	2	—	·52
Septicæmia	2	2	—	·13
Tubercle	54	9	27	5·29
„ of Lung	274	29	238	31·11
Syphilis	3,030	4	52	315·36
Gonorrhœa	4,693	—	7	387·82
Soft Chancre	1,563	—	—	117·29
Anthrax	1	—	—	·14
Actinomyco·is	2	1	—	·02
Diseases dependent on Animal Parasites (Kala-Azar).	1	—	—	·33
Bilharzia Hæmatobia	21	—	13	1·90
Tænia Solium	27	—	—	·83
T. Mediocanellata	1	—	—	·02
Carried forward	13,116	70	354	1,014·68

TABLE I—*continued.*

United Kingdom.

Average Strength { In Annual Returns .. 113,532 / Including Men Detached .. 124,412

Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number Constantly Sick.
Brought forward	13,116	70	354	1,014·68
Echinococcus Hominis	1	—	—	·02
Ascaris Lumbricoides	2	—	—	·05
Oxyuris Vermicularis	1	—	—	·02
Pediculus	14	—	—	·28
Phthirius Inguinalis	118	—	—	2·02
Scabies	2,199	—	—	69·04
Leptus Autumnalis	1	—	—	·03
Favus	4	—	—	·42
Ringworm	61	—	—	2·53
Tinea Versicolor	2	—	—	·16
Sur'eit	1	—	1	·03
Alcoholism	123	4	4	4·68
Delirium Tremens	1	—	—	·06
Rheumatic Fever	112	1	2	17·91
Rheumatism	1,243	3	43	79·27
Gout	41	—	1	1·90
Osteoarthritis	17	—	3	2·08
Cyst	92	—	—	4·30
New Growth, Non-malignant	194	—	5	13·95
„ Malignant	25	11	5	3·11
Myxœdema	1	—	—	·01
Anæmia	51	—	3	3·12
Idiopathic Anæmia	2	1	—	·46
Purpura	5	—	—	·42
Leucocythæmia	3	3	—	·13
Hodgkin's Disease	2	—	1	·09
Diabetes Mellitus	12	2	8	1·49
„ Insipidus	3	—	—	·36
Congenital Malformation	10	—	9	·43
Debility	657	—	55	35·62
Neuritis	38	—	7	5·06
Myelitis	8	2	4	2·42
Degeneration of Spinal Cord	14	1	8	2·12
Inflammation of Membranes of the Brain ..	12	7	1	·58
„ of Brain	1	—	—	·10
Abscess of Brain	4	4	—	·37
Sclerosis of Brain	1	—	—	·24
Softening of Brain	1	1	—	·04
Hæmorrhage of Brain	6	4	1	·21
Apoplexy	1	—	1	·35
Paralysis	26	—	7	2·45
Paraplegia	1	—	1	·21
Hemiplegia	4	—	2	·37
Local Paralysis	1	—	1	·03
Chorea	6	—	1	·56
Carried forward	18,238	114	528	1,273·82

United Kingdom.

TABLE I—*continued.*

Average Strength { In Annual Returns .. 113,532 / Including Men Detached.. 124,412

Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number Constantly Sick.
Brought forward	18,238	114	528	1,273·82
Torticollis	3	—	—	·03
Facial Spasm	1	—	—	·18
Epilepsy	115	1	71	7·77
Tetany	1	—	—	·22
Vertigo	34	—	1	1·23
Headache	49	—	2	2·20
Anæsthesia	1	—	—	·08
Neuralgia	224	—	3	9·33
Hysteria	11	—	1	·73
Stammering	3	—	1	·11
Nervous Weakness	44	—	10	3·76
Idiocy..	4	—	2	·30
Mania	18	—	17	1·69
Melancholia	32	—	33	3·97
Dementia	17	—	17	2·02
Mental Stupor	11	—	8	1·60
General Paralysis of the Insane	4	—	4	·61
Delusional Insanity..	15	—	15	2·14
Conjunctivitis	411	—	4	16·31
„ Granular	13	—	—	·69
Ecchymosis	4	—	—	·05
Keratitis	27	—	3	2·87
„ Ulcerative..	65	—	2	4·39
Opacity of Cornea	4	—	1	·23
Staphyloma	2	—	1	·24
Iritis	57	—	3	5·41
Synechia	1	—	—	·02
Mydriasis	2	—	—	·06
Choroiditis	2	—	2	·10
Atrophy of Choroid..	1	—	—	·05
Glaucoma	3	—	—	·09
Optic Neuritis	5	—	1	·46
Atrophy of Optic Nerve	2	—	2	·36
Hæmorrhage of Retina	1	—	1	·06
Retinitis Pigmentosa	1	—	1	·04
Detachment of Retina	3	—	2	·40
Lenticular Cataract	5	—	2	·18
Hæmorrhage into Vitreous Humour	2	—	—	·23
Opacities	1	—	—	·03
Amblyopia	8	—	2	·43
Ametropia	91	—	42	3·93
Myopia	9	—	8	·79
Hypermetropia	6	—	7	·72
Astigmatism	7	—	6	·66
Squint	7	—	—	·37
Carried forward	19,565	115	803	1,350·96

TABLE I—*continued.* *United Kingdom.*

Average Strength { In Annual Returns .. 113,532 / Including Men Detached.. 124,412

Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number Constantly Sick.
Brought forward	19,565	115	803	1,350·96
Nystagmus	1	—	—	·01
Stricture and Obliteration	1	—	—	·02
Chronic Dacryo-cystitis	2	—	—	·04
Obstruction of Nasal Duct	2	—	—	·08
Blepharitis Marginalis	65	—	3	2·27
Stye	24	—	—	·40
Abscess of Eyelids	2	—	—	·01
Inflammation External Meatus	342	1	2	14·72
Accumulation of Wax in External Meatus ..	10	—	—	·20
Inflammation of Middle Ear	93	—	20	7·34
„ of Tympanum	1	—	—	·03
„ of Membrana Tympani	57	—	10	3·01
Ulceration of Membrana Tympani	47	—	—	·17
Perforation of Membrana Tympani	103	—	40	9·96
Tinnitus	1	—	—	·06
Deafness	31	—	17	1·69
Rhinitis	110	—	—	3·34
Inflammation of Framework	2	—	—	·37
Diseases of Septum..	2	—	—	·09
Epistaxis	17	—	—	·58
Inflammation of Frontal Sinuses	2	—	—	·08
Hypertrophy of Pharyngeal Tonsil	1	—	—	·11
Pericarditis	5	1	—	·39
Endocarditis	1	—	—	·12
Vavular Disease of the Heart	296	16	215	29·34
Myocarditis	—	1	—	—
Degeneration of Heart	1	7	1	·04
Hypertrophy of Heart	3	—	2	·44
Dilatation of Heart	11	2	4	·91
Angina Pectoris	1	—	1	·14
Syncope	18	8	—	·53
Disordered Action of Heart	482	—	91	36·11
Arteritis	3	2	1	·11
Degeneration of Arteries	2	—	—	·15
Dilatation of Arteries	2	—	1	·04
Aneurysm	11	11	4	1·44
Traumatic Aneurysm	1	—	—	·25
Obstruction of Arteries	2	1	—	·21
Reynaud's Disease	1	—	1	·04
Phlebitis	23	—	4	1·38
Obstruction of Veins	8	—	2	·83
Thrombosis	13	—	6	1·13
Varix..	193	—	27	13·93
Varicose Aneurysm	1	—	—	·20
Hay Fever	1	—	—	·01
Carried forward	21,560	165	1,255	1,483·28

United Kingdom.

TABLE I—*continued.*

Average Strength		Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number Constantly Sick.
In Annual Returns .. 113,532					
Including Men Detached.. 124,412					
Diseases.					
Brought forward		21,560	165	1,255	1,483·28
Laryngitis		102	—	4	4·32
Aphonia		2	—	—	·07
Tracheitis		1	—	—	·03
Bronchitis		1,826	2	14	66·52
Bronchitis Catarrhal		588	—	2	23·95
Dilatation of Broncho		1	—	1	·10
Spasmodic Asthma		44	1	7	2·64
Congestion of Lung		10	1	—	·42
Hæmorrhage of Lung		18	3	—	1·59
Pneumonia		420	59	1	39·34
Broncho-Pneumonia		19	4	—	1·66
Abscess of Lung		4	1	—	·29
Chronic Interstitial Inflammation		2	—	1	·29
Phthisis, Acute		11	5	12	1·59
Emphysema		4	1	—	·27
Pleurisy		220	1	3	19·10
Empyema		8	—	3	1·40
Ulceration of Lips		1	—	—	·14
Stomatitis		18	—	—	·65
Ulceration of Mouth		6	—	—	·24
Disorders of Dentine		1	—	—	·01
Caries of Dentine		218	—	147	6·97
Inflammation Dental Periosteum		71	—	—	1·58
Abscess of Dental Periosteum		324	—	—	10·20
Inflammation of Gums		6	—	—	·12
Suppuration of Gums		5	—	—	·10
Ulceration of Gums..		8	—	—	·31
Caries of Alveoli		1	—	—	·02
Necrosis of Alveoli		—	—	—	·10
Toothache		1	—	—	·38
Inflammation of Tongue		7	—	—	·29
Ulceration of Tongue		2	—	—	·03
Sore Throat		1,624	—	—	47·69
Ulceration of Palate		5	—	—	·30
Tonsillitis		3,760	—	1	136·30
,, Follicular		108	—	—	2·64
Quinsy		1	—	—	·03
Hypertrophy of Tonsils		14	—	—	·60
Inflammation of Salivary Glands		2	—	—	·11
,, of Pharynx		24	—	—	1·07
Post-pharyngeal Abscess		2	1	—	·05
Stricture of Œsophagus		1	—	1	·25
Inflammation of Stomach		183	1	4	7·54
Ulceration of Stomach		6	3	1	·96
Hæmatemesis		9	—	—	·58
Carried forward		31,248	248	1,457	1,866·12

TABLE I—*continued.*

United Kingdom.

Average Strength { In Annual Returns .. 113,532 / Including Men Detached.. 124,412

Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number Constantly Sick.
Brought forward	31,248	248	1,457	1,866·12
Dilatation of Stomach	5	—	—	·85
Indigestion	540	—	6	18·96
Enteritis	189	4	1	16·15
Typhilitis	70	8	1	6·24
Colitis	9	—	1	·86
Inflammation, Catarrhal	4	—	—	1·24
Ulceration of Intestines	2	—	—	·19
Hæmorrhage of Intestines	2	—	—	·10
Fæcal Accumulation	5	—	—	·08
Sprue	—	—	—	·07
Hernia	502	1	34	47·54
Volvulus	2	1	—	·04
Contraction of Intestines	1	—	1	·26
Stricture of Intestines	2	—	1	·13
Obstruction of Intestines	2	1	—	·15
Rupture of Intestines	—	—	1	·07
Constipation	87	—	—	2·29
Colic	419	—	—	9·63
Diarrhœa	300	—	1	7·06
Proctitis	1	—	—	·04
Periprectitis	15	—	—	1·07
Ulceration of Rectum	3	—	—	·16
Fissure of the Anus	9	—	—	·58
Fistula in Ano	30	—	2	4·18
Piles	258	—	1	13·66
Pruritus Ani	1	—	—	·01
Hepatitis	127	6	5	11·49
Abscess of Liver	18	7	2	3·65
Cirrhosis of Liver	3	—	—	·34
Perihepatitis	1	—	—	·03
Congestion of Liver	65	—	1	3·83
Jaundice	171	—	—	8·94
Inflammation of Gall Bladder and Duct	7	—	—	·28
Calculi	2	—	1	·35
Biliary Colic	1	—	—	·02
Peritonitis	7	2	—	·90
Ascites	1	1	—	—
Adhesion of Peritoneum	2	—	1	·12
Splenitis	2	—	—	·06
Hypertrophy of Spleen	1	—	—	·21
Inflammation of Lymphatic Glands	366	—	—	28·57
Suppuration of Lymphatic Glands	22	—	—	3·21
Hypertrophy of Lymphatic Glands	5	—	—	·27
Inflammation of Lymphatics	14	—	—	·68
„ of Thyroid Body	1	—	—	·09
Carried forward	34,522	279	1,517	2,060·77

United Kingdom.

TABLE I—*continued.*

Average Strength { In Annual Returns .. 113,532 / Including Men Detached.. 124,412

Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number Constantly Sick.
Brought forward	34,522	279	1,517	2,060·77
Goitre	4	—	2	·48
Acute Nephritis	41	8	4	4·37
Brights Disease	34	7	12	3·83
Chronic Nephritis	2	—	—	·28
Granular Kidney	1	—	1	·18
Abscess of Kidney	5	1	—	·54
Pyelitis	1	—	—	·06
Hydronephrosis	—	—	1	·02
Movable Kidney	1	—	1	·10
Calculus in Kidney	2	—	1	·15
Hæmaturia	8	—	—	·45
Hæmoglobinuria	1	—	—	·15
Albuminuria	12	—	1	·80
Phosphaturia	1	—	—	·02
Cystitis	15	—	—	1·41
Ulceration of the Bladder	1	—	—	·05
Irritability of the Bladder..	1	—	—	·05
Retention of Urine	7	—	—	·13
Incontinence of Urine	75	—	22	4·59
Urethritis	14	—	—	·36
Stricture of Urethra	50	—	2	3·06
Urethral Fistula	2	—	1	·57
nflammation of Prostate	2	—	—	·39
Abscess of Prostate	1	—	—	·10
Phimosis	59	—	—	3·23
Paraphimosis	29	—	—	1·40
Balanitis	267	—	—	7·91
Ulcer of Penis	13	—	—	·49
Abscess of Scrotum	2	—	—	·12
Inflammation of Spermatic Cord	2	—	—	·11
Hydrocele	46	—	1	2·25
Hæmatocele	1	—	—	·18
Varicocele	152	—	7	11·35
Inflammation Tunica Vaginalis	2	—	—	·04
Hydrocele	6	—	—	1·61
Orchitis	276	—	1	15·28
Epididymitis	14	—	1	·59
Inflammation of the Male Breast	5	—	—	·11
Ostitis	52	1	5	3·42
Periostitis	16	—	—	1·45
Chronic Abscess	1	—	1	·11
Caries	4	—	—	·44
Necrosis	23	—	3	2·49
Hypertrophy of Bone	2	—	—	·14
Inflammation of Joint	1,003	1	13	52·52
Carried forward	36,778	297	1,597	2,188·15

TABLE I—*continued.*

United Kingdom.

Average Strength { In Annual Returns .. 113,532 / Including Men Detached.. 124,412

Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number Constantly Sick.
Brought forward	36,778	297	1,597	2,188·15
Ankylosis	11	—	9	·94
Dislocation of Articular Cartilage	74	—	14	6·57
Loose Body	8	—	1	·74
Relaxation of Ligaments	2	—	—	·09
Knock-knee	3	—	—	·06
Inflammation of Spine	1	—	1	·17
Caries of Spine	5	—	3	1·54
Psoas, and other Abscesses	5	1	—	1·17
Lateral Curvature	2	—	1	·13
Ankylosis of Spine	1	—	—	—
Inflammation of Muscle	1	—	—	·04
Suppuration of Muscle	1	—	—	·08
Atrophy of Muscle	2	—	1	·30
Spontaneous Rupture	1	—	—	·03
Myalgia	180	—	—	5·14
Dupuytrens Contraction	1	—	1	·13
Inflammation of Tendons	1	—	—	·01
Adhesion of Tendons	2	—	—	·05
Contraction of Tendons	17	—	8	1·30
Inflammation of Sheaths of Tendons	6	—	—	·18
Ganglion	7	—	—	·36
Inflammation of Bursæ	49	—	--	2·51
Abscess of Bursæ	4	—	--	·33
Bunion	14	—	5	·96
Bursal Cyst	6	—	—	·39
„ Tumour	1	—	1	·10
Club Foot	13	—	8	·64
Flat Foot	42	—	32	2·88
Deformities of Great Toe	91	--	8	6·51
Inflammation of Connective Tissue	999	1	—	42·73
Abscess of Connective Tissue	1,114	2	1	50·38
Œdema	7	—	1	·47
Emphysema	1	—	—	·04
Erythema	50	—	—	1·95
Roseola	2	—	—	·08
Pityriasis Rosea	3	—	—	·10
Urticaria	70	—	—	2·18
Prickly Heat	1	—	—	·02
Eczema	918	--	3	47·62
Impetigo	204	--	—	8·56
Pityriasis	4	—	—	·06
Lichen	5	—	—	·15
Psoriasis	153	—	4	11·13
Sudamina	1	—	—	·02
Herpes	85	—	3	3·93
Carried forward	40,952	301	1,702	2,390·86

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TABLE I—*continued.*

Average Strength		Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number Constantly Sick.
In Annual Returns .. 113,532					
Including Men Detached.. 124,412					
Diseases.					
Brought forward		40,952	301	1,702	2,390·86
Zona		38	—	—	1·40
Pemphigus		7	—	—	1·21
Dermatitis Herpetiformis		9	—	—	·24
Acne		20	—	—	1·22
Sycosis		26	—	1	1·34
Seborrhœa		13	—	—	·76
Ichthyosis		2	—	—	·10
Chloasma		1	—	—	·03
Alopecia		4	—	—	·37
Area		1	—	—	·09
Ulcer		294	—	4	15·59
Cicatrices		4	—	—	·17
Boil		1,043	—	1	34·13
Carbuncle		44	—	—	1·81
Gangrene		—	—	—	·21
Whitlow		220	—	—	9·17
Onychia		239	—	—	11·95
Corn		51	—	2	2·00
Horn		1	—	—	·02
Cheloid		1	—	—	·19
Wen		15	—	—	·60
Adenoma Sebaceum		3	—	—	·06
Hyperidrosis		3	—	—	·11
Bromidrosis		3	—	1	·11
Lupus		6	—	1	·93
Burns and Scalds		2	—	—	·02
Heat-stroke		32	—	—	1·18
Sun-stroke		15	1	—	·34
Heat-apoplexy		1	2	—	·02
Multiple injury		7	7	2	·77
Suffocation from submersion		—	14	—	—
Shock		2	2	—	·03
Burns and Scalds		127	1	—	5·65
Abrasion		300	—	—	8·65
Contusion		1,840	1	7	68·93
Wound		1,732	1	16	76·88
,, self-inflicted		5	—	—	·63
Strain or Sprain		2,114	—	3	78·35
Dislocation		133	—	8	10·24
Fracture		631	8	23	64·18
Avulsion of a Part		2	—	—	·16
Compression of a Nerve		1	—	—	·15
Rupture of Kidney		2	—	—	·08
Strain of Muscle		7	—	—	·14
Rupture of Muscle		14	—	1	·59
Carried forward		49,967	338	1,772	2,791·66

TABLE I—*continued.* *United Kingdom.*

Average Strength		Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number Constantly Sick.
In Annual Returns .. 113,532					
Including Men Detached.. 124,412					
Diseases.					
Brought forward		49,967	338	1,772	2,791·66
Strain of Tendons		2	—	—	·04
Fracture of Skull		11	2	4	1·26
Rupture of Tendons		6	—	1	·87
Concussion of Brain		1	—	3	4·43
Contusion of Brain		1	—	1	·12
Laceration of Brain		1	—	1	·10
Compression of Brain		2	1	—	·08
Wound of Eye		1	—	—	·13
Hæmatoma of the Pinna		4	—	—	·01
Rupture of Membrani Tympani		1	—	—	·04
Wound of Neck, Self-inflicted		4	4	—	·20
„ Gunshot		25	14	3	1·76
Fracture of Spine		2	—	1	·10
Dislocation of Spine		—	—	1	—
Concussion of Spine		65	—	1	·09
Rupture of Viscera		1	1	—	·20
„ of Urethra		3	—	1	·20
Laceration of Urethra		1	—	—	·13
Separation of Epiphyses		6	—	—	·52
Internal Derangement of Joints		9	—	1	1·24
Rupture of Soft Parts		1	—	—	·02
Blisters of Feet		99	—	—	2·57
Foreign Bodies		35	—	1	1·04
Poisons—					
Lead		—	—	—	·04
Mercury		3	—	1	·26
Oxalic Acid		—	1	—	—
Caustic		1	—	—	·01
Eucalyptus Oil		1	—	—	·01
Alcohol		1	—	—	·02
Chloroform Vapour		1	1	—	—
Cocaine		1	—	—	·01
Opium		2	1	—	·09
Tobacco		1	—	—	·01
Carbolic Acid		1	—	—	·02
Decayed and Poisonous Food		18	—	—	·39
Coal Gas		1	—	—	·01
Snake Bite		2	—	—	·02
Dead Animal Matter		4	—	—	·09
No Appreciable Disease		430	—	—	13·51
Totals		50,715	363	1,792	2,822·23

Mediterranean.

TABLE II.

Showing the AVERAGE STRENGTH, ADMISSIONS INTO HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in the MEDITERRANEAN AREA during 1906.

Average Sick Time to each Soldier ... ... 12·41
Average Duration of each Case of Sickness ... 24·07

Average Strength, 17,191. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number Constantly Sick.
Measles	2	—	—	—	—	—	·10
Rubella	1	—	—	—	—	—	·06
Scarlet Fever	11	—	—	—	—	—	1·88
Dengue	29	—	—	—	—	—	·86
Influenza	103	—	—	—	—	—	3·48
Mumps	2	—	—	—	—	—	·07
Diphtheria	2	—	—	—	—	—	·27
Simple Continued Fever	875	—	—	—	1	—	25·38
Enteric Fever	66	10	—	10	6	1	13·73
Malta Fever	186	5	2	7	181	8	48·08
Epidemic Diarrhœa	1	—	—	—	—	—	·03
Dysentery	87	5	—	5	5	—	9·19
Ague	206	—	—	—	2	—	6·39
Remittent Fever	9	—	—	—	—	—	·60
Erysipelas	4	1	—	1	—	—	·18
Pyæmia	1	1	—	1	—	—	·03
Septicæmia	1	1	—	1	—	—	·02
Tubercle	6	1	—	1	3	2	·77
Tubercle of Lung	24	2	2	4	28	26	3·68
Syphilis	304	—	—	—	3	—	30·39
Gonorrhœa	1,202	—	—	—	4	1	120·95
Soft Chancre	696	—	—	—	—	—	61·31
Bilharzia Hæmatobia	2	—	—	—	2	1	·35
Tænia Solium	1	—	—	—	—	—	·02
„ Mediocanellata	1	—	—	—	—	—	·03
Ascaris Lumbricoides	1	—	—	—	—	—	·06
Oxyuris Vermicularis	1	—	—	—	—	—	·05
Phthirius Inguinalis	14	—	—	—	—	—	·32
Culex Anxifer	1	—	—	—	—	—	·01
Scabies	181	—	—	—	—	—	6·29
Ringworm	3	—	—	—	—	—	·15
Alcoholism	47	1	—	1	1	1	1·60
Delirium Tremens	3	1	—	1	—	—	·07
Rheumatic Fever	7	—	—	—	—	—	1·42
Rheumatism	132	—	—	—	8	2	10·46
Carried forward	4,212	28	4	32	244	42	348·28

TABLE II—*continued.* *Mediterranean.*

Average Strength, 17,191. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number Constantly Sick.
Brought forward	4,212	28	4	32	244	42	348·28
Gout	4	—	—	—	—	—	·27
Osteoarthritis	3	—	—	—	1	—	·22
Cyst	11	—	—	—	—	—	·30
New Growth, Non-Malignant	75	—	—	—	—	—	4·52
„ Malignant	1	1	—	1	—	—	·12
Anæmia	6	—	—	—	—	—	·67
Hæmophilia	1	—	—	—	—	—	·06
Diabetes Insipidus	1	—	—	—	—	—	·06
Congenital Malformation	2	—	—	—	—	—	·12
Debility	119	—	—	—	12	1	9·07
Neuritis	15	—	—	—	6	2	1·72
Disseminated Sclerosis, Spinal Cord ..	1	—	—	—	1	—	·16
Abscess of Brain	1	2	—	2	—	—	·01
Paralysis	2	—	—	—	—	—	·41
„ Incomplete	1	—	—	—	1	—	·14
Hemiplegia	1	—	—	—	1	—	·08
Torticollis	1	—	—	—	—	—	·04
Epilepsy	5	—	—	—	5	*3	·73
Vertigo	5	—	—	—	3	—	·74
Headache	20	—	—	—	—	—	·38
Neuralgia	22	—	—	—	—	—	·80
Hysteria	3	—	—	—	1	—	·35
Nervous Weakness	8	—	—	—	6	1	·86
Idiocy	1	—	—	—	—	—	·22
Mania	1	—	—	—	2	4	·16
Melancholia	11	—	—	—	9	14	2·15
Dementia	1	—	—	—	2	6	·21
General Paralysis, Insane	1	1	—	1	—	—	·01
Delusional Insanity	2	—	—	—	2	2	·56
Conjunctivitis	71	—	—	—	1	2	3·13
„ Follicular	3	—	—	—	—	—	·17
„ Granular	13	—	—	—	1	—	·90
Hyperæmia	1	—	—	—	—	—	·03
Keratitis	4	—	—	—	1	—	·51
„ Ulcerative	6	—	—	—	1	—	·31
Scleritis	1	—	—	—	—	—	·08
Iritis	9	—	—	—	—	1	·68
Hæmorrhage of Iris	1	—	—	—	—	—	·02
Mydriasis	1	—	—	—	—	—	·02
Choroiditis	2	—	—	—	1	—	·35
Atrophy of Optic Nerve	—	—	—	—	1	1	·09
Detachment Retina	1	—	—	—	—	—	·03
Lenticular Cataract	1	—	—	—	1	—	·03
Carried forward	4,651	32	4	36	303	79	397·77

* Includes 1 discharged in the Command.

Mediterranean.

TABLE II—*continued.*

Average Strength, 17,191. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number Constantly Sick.
Brought forward	4,651	32	4	36	303	79	379·77
Amblyopia	3	—	—	—	2	2	·36
Neuralgia of Eyeball	1	—	—	—	—	—	·06
Ametropia	8	—	—	—	7	13	·50
Myopia	6	—	—	—	1	—	·19
Hypermetropia	10	—	—	—	2	—	·82
Astigmatism	9	—	—	—	2	—	·50
Asthenopia	1	—	—	—	—	—	·12
Abscess Lachrymal Sac	1	—	—	—	—	—	·02
Blepharitis	9	—	—	—	—	—	·43
Stye	2	—	—	—	—	—	·02
Ecchymosis	1	—	—	—	—	—	·02
Inflammation External Meatus	111	—	—	—	2	1	4·41
Abscess „ „	4	—	—	—	—	—	·06
Accumulation of Wax in External Meatus	1	—	—	—	—	—	·01
Inflammation Middle Ear	3	—	—	—	—	—	·34
„ Tympanum	16		—	1		—	·80
„ Membrana Tympani ..	8	—	—	—	—	2	·66
Perforation „ „ ..	33	—	—	—	9	7	1·98
Deafness	9	—	—	—	3	3	1·01
Rhinitis	12	—	—	—	—	—	·34
Coryza	3	—	—	—	—	—	·07
Epistaxis	4	—	—	—	—	—	·05
Inflammation Accessory Sinuses	1	—	—	—	—	—	·17
„ Naso Pharynx	5	—	—	—	1	1	·18
Pericarditis	2	—	—	—	—	—	·19
Endocarditis	1	1	—	1	—	1	·02
Valvular Disease, Heart	42	1	—	1	29	18	6·18
Degeneration of Heart	1	1	—	1	—	—	·06
Hypertrophy of Heart	3	—	—	—	2	1	·29
Dilatation of Heart	4	—	—	—	—	—	·36
Disordered Action of Heart	72	—	—	—	12	*5	5·65
Aneurysm	2	4	—	4	—	—	·21
Thrombosis	1	1	—	1	—	—	·07
Phlebitis	4	—	—	—	—	—	·30
Thrombosis	1	—	—	—	—	—	·12
Varix	27	—	—	—	1	—	2·01
Arterio-venous Aneurysm	1	—	—	—	1	—	·04
Laryngitis	5	—	—	—	—	—	·14
Tracheitis	2	—	—	—	—	—	·09
Bronchitis	77	—	—	—	—	—	3·11
„ Catarrhal	124	—	—	—	—	—	4·18
Spasmodic Asthma	4	—	—	—	—	—	·17
Congestion of Lung	1	—	—	—	—	—	·05
Carried forward	5,286	41	4	45	380	133	416·13

* Includes 1 discharged in the Command.

TABLE II—*continued.*

Mediterranean.

Average Strength, 17,191. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number Constantly Sick.
Brought forward	5,286	41	4	45	380	133	416·13
Hæmoptysis	3	—	—	—	—	—	·16
Pneumonia	50	2	—	2	—	1	5·24
Broncho-Pneumonia	1	—	—	—	1	—	·33
Abscess of Lung	1	—	—	—	—	—	·11
Chronic Interstitial Inflammation ..	1	1	—	1	1	—	·25
Emphysema	2	—	—	—	—	—	·19
Pleurisy	36	—	—	—	1	—	3·08
Stomatitis	6	—	—	—	—	—	·47
Caries of Dentine	26	—	—	—	4	5	·71
Inflammation Dental Periosteum ..	15	—	—	—	—	—	·42
Abscess „ „	31	—	—	—	—	—	·78
Inflammation Gums	1	—	—	—	—	—	·02
Suppuration „	1	—	—	—	—	—	·05
Ulceration „	1	—	—	—	—	—	·01
Necrosis of Alveoli	1	—	—	—	—	—	·02
Toothache	1	—	—	—	—	—	·01
Inflammation of Tongue	1	—	—	—	—	—	·02
Sore Throat	111	—	—	—	—	—	2·72
Ulceration Throat	1	—	—	—	—	—	·04
Tonsillitis	366	—	—	—	—	—	10·83
Tonsillitis Follicular	39	—	—	—	—	—	1·02
Hypertrophy of Tonsils	2	—	—	—	—	—	·03
Inflammation Pharynx	14	—	—	—	—	—	·37
Ulceration of Pharynx	1	—	—	—	—	—	·02
Inflammation of Stomach	43	1	—	1	—	—	1·54
Ulceration „ „	2	—	—	—	—	—	·18
Dilatation „ „	3	—	—	—	—	—	·05
Indigestion	102	—	—	—	—	—	2·71
Gastralgia	—	—	—	—	—	—	·95
Excessive Appetite	1	—	—	—	—	—	·02
Enteritis	23	—	—	—	—	—	·33
Typhlitis	15	—	—	—	—	—	·93
Colitis	2	—	—	—	—	—	·07
Hernia	41	—	—	—	3	2	5·56
Internal Strangulation Intestines ..	1	1	—	1	—	—	·02
Obstruction Intestines	1	—	—	—	—	—	·08
Constipation	24	—	—	—	—	—	·40
Colic	68	—	—	—	—	—	1·63
Diarrhœa	206	—	—	—	—	—	3·90
Inflammation Rectum	1	—	—	—	—	—	·03
Peri-proctitis Abscess	—	—	—	—	—	—	·19
Fissure Anus	4	—	—	—	—	—	·23
Fistula in Ano	2	—	—	—	—	—	·19
Piles	34	—	—	—	—	—	2·20
Hepatitis	13	—	—	—	1	—	·81
Carried forward	6,587	46	4	50	391	141	465·22

Mediterranean.

TABLE II—*continued.*

Average Strength, 17,191. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number Constantly Sick.
Brought forward	6,587	46	4	50	391	141	455·22
Abscess of Liver	9	3	1	4	3	—	1·27
Congestion of Liver	5	—	—	—	1	—	·38
Hypertrophy of Liver	1	—	—	—	—	—	·19
Jaundice	61	—	—	—	—	—	3·60
Inflammation Gall-Bladder and Duct ..	—	—	—	—	—	—	·10
Peritonitis	1	—	—	—	—	—	·12
Ascites	1	—	—	—	—	—	·15
Inflammation Lymphatic Glands ..	60	—	—	—	—	—	5·18
Suppuration „ „ ..	3	—	—	—	—	—	·49
Inflammation of Lymphatics	1	—	—	—	—	—	·10
Goitre	4	—	—	—	3	1	·18
Acute Nephritis	2	—	—	—	—	—	·43
Bright's Disease	7	1	—	1	6	4	1·17
Pyelitis	2	—	—	—	—	—	·21
Hydronephrosis	1	—	—	—	1	—	·05
Calculus in Kidney	1	—	—	—	1	1	·08
„ Pelvis	1	—	—	—	—	—	·06
„ Ureter	1	—	—	—	—	—	·01
Hæmaturia	1	—	—	—	—	—	·11
Oxaluria	1	—	—	—	—	—	·09
Cystitis	5	—	—	—	—	—	1·23
Retention of Urine	1	—	—	—	—	—	·04
Incontinence of Urine	11	—	—	—	4	2	1·19
Urethritis	3	—	—	—	—	—	·09
Hæmorrhage Urethra	1	—	—	—	—	—	·05
Stricture „	4	—	—	—	—	—	·12
Urethral Fistula	1	—	—	—	—	—	·07
Inflammation of Prostate	—	—	—	—	—	—	·06
Hypertrophy „	—	—	—	—	—	1	—
Phimosis	22	—	—	—	—	—	1·63
Paraphimosis	6	—	—	—	—	—	·41
Balanitis	81	—	—	—	—	—	2·18
Ulcer of Penis	1	—	—	—	—	—	·06
Hydrocele	7	—	—	—	—	—	·75
Varicocele	29	—	—	—	—	—	2·61
Hæmatocele	1	—	—	—	—	—	·09
Hydrocele	8	—	—	—	—	—	·52
Orchitis	41	—	—	—	—	—	2·25
Epididymitis	14	—	—	—	—	—	·67
Inflammation Male Breast	1	—	—	—	—	—	·03
Ostitis	3	—	—	—	—	—	·05
Periostitis	4	—	—	—	—	—	·10
Necrosis	1	—	—	—	1	1	·09
Inflammation of Joint	111	—	—	—	4	4	5·46
Ankylosis Fibrous	1	—	—	—	1	1	·07
Carried forward	7,107	50	5	55	416	156	499·01

TABLE II—*continued.* *Mediterranean.*

Average Strength, 17,191. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number Constantly Sick.
Brought forward	7,107	50	5	55	416	156	499·01
Dislocation Articular Cartilage	4	—	—	—	—	—	·48
Loose Body	1	—	—	—	—	—	·03
Posterior Curvature Spine	—	—	—	—	—	1	—
Lateral Curvature Spine	1	—	—	—	1	—	·05
Atrophy Muscle	2	—	—	—	1	1	·09
Spontaneous Rupture Muscle	1	—	—	—	—	—	·12
Myalgia	27	—	—	—	—	—	1·12
Contraction of Fasciæ	1	—	—	—	—	—	·04
„ of Tendons	2	—	—	—	1	—	·13
Inflammation Sheaths of Tendons ..	2	—	—	—	—	—	·08
Thecal Abscess	1	—	—	—	—	—	·02
Inflammation Bursæ	18	—	—	—	—	—	·94
Bunion	2	—	—	—	—	—	·04
Club Foot	1	—	—	—	—	—	·01
Flat Foot	2	—	—	—	2	—	·04
Deformities Great Toe	9	—	—	—	1	3	·83
Hammer Toe	1	—	—	—	—	—	·07
Inflammation of Connective Tissue ..	160	—	—	—	—	—	5·21
Abscess „ „ ..	112	—	—	—	1	—	5·32
Œdema	1	—	—	—	—	—	·06
Erythema	8	—	—	—	—	—	·29
Pityriasis Rosea	1	—	—	—	—	—	·04
Urticaria	16	—	—	—	—	—	·38
Prickly Heat	3	—	—	—	—	—	·11
Eczema	100	—	—	—	—	—	4·95
Impetigo	55	—	—	—	—	—	3·12
Pityriasis	1	—	—	—	—	—	·05
Lichen	1	—	—	—	—	—	·04
Psoriasis	25	—	—	—	—	—	2·17
Herpes	7	—	—	—	—	—	·29
Zona	6	—	—	—	—	—	·25
Pemphigus	2	—	—	—	—	—	·28
Dermatitis Herpetiformis	3	—	—	—	—	—	·15
Acne	7	—	—	—	—	—	·22
Sycosis	13	—	—	—	—	—	·66
Alopecia	1	—	—	—	—	—	·02
Area	1	—	—	—	—	—	·05
Ulcer	74	—	—	—	—	—	4·81
Cicatrices	1	—	—	—	—	—	·08
Boil	123	—	—	—	—	—	3·68
Carbuncle	10	—	—	—	—	—	·40
Whitlow	31	—	—	—	—	—	1·40
Onychia	40	—	—	—	—	—	2·44
Corn	3	—	—	—	—	—	·33
Wen	5	—	—	—	—	—	·22
Carried forward	7,992	50	5	55	423	161	540·12

TABLE II—*continued.*

Average Strength, 17,191. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number Constantly Sick.
Brought forward	7,992	50	5	55	423	161	540·12
Heat-stroke..	9	—	—	—	2	—	·42
Sun-stroke	6	—	—	—	—	—	·24
Heat-apoplexy	1	1	—	1	—	—	—
Multiple Injury	10	1	—	1	4	1	1·51
Suffocation from Submersion	—	2	—	2	—	—	—
„ „ Plugging of Air Passages	—	1	—	1	—	—	—
Burns and Scalds	16	—	—	—	—	—	·66
Abrasion	60	—	—	—	—	—	2·15
Contusion	170	—	—	—	1	1	6·72
Wound	170	—	—	—	2	2	7·98
„ Self-inflicted	2	1	—	1	—	—	·07
„ Gunshot	7	—	—	—	1	1	·81
„ „ Self-inflicted	2	2	—	2	—	—	·14
Strain or Sprain	202	—	—	—	1	—	8·58
Dislocation	17	—	—	—	—	—	1·26
Fracture	78	2	1	3	3	4	7·91
„ of Skull	2	4	—	4	1	—	·03
Stretching Nerves	1	—	—	—	1	—	·21
Compression „	1	—	—	—	—	—	·04
Rupture of Muscle	2	—	—	—	—	—	·05
Concussion of Brain	10	—	—	—	—	—	1·03
Contusion Eyeball	—	—	—	—	—	—	·29
Foreign Body in Conjunctiva	1	—	—	—	—	—	·04
„ „ Eyeball	1	—	—	—	—	—	·01
Concussion Spinal Cord	—	—	—	—	1	—	·20
Rupture Bladder	1	—	—	—	—	—	·01
Separation of Epiphyses	2	—	—	—	—	—	·16
Blisters of Feet	13	—	—	—	—	—	·32
Foreign Bodies	3	—	—	—	—	—	·09
In Action	1	—	—	—	1	—	·25
Poisons—							
Lead	2	—	—	—	—	—	·14
Oxalic Acid	1	—	—	—	—	—	·04
Decayed and Poisonous Food	1	—	—	—	—	—	·02
No Appreciable Disease	78	—	—	—	—	—	2·87
TOTALS	8,862	64	6	70	441	170	584·37

TABLE III.

South Africa.

Showing the AVERAGE STRENGTH, ADMISSIONS INTO HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in the SOUTH AFRICAN COMMAND during the YEAR 1906.

Average Sick Time to each Soldier ... ... 10·11
Average Duration of each Case of Sickness ... 23·93

Average Strength, 18,000. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged.	Average Number Constantly Sick.
Measles	1	—	—	—	—	—	·04
Rubella	1	—	—	—	—	—	·06
Scarlet Fever	9	—	—	—	—	—	1·46
Influenza	114	—	—	—	1	—	5·75
Diphtheria	1	—	—	—	—	—	·01
Cerebro-spinal Fever	1	2	—	2	—	—	·12
Simple Continued Fever	13	—	—	—	—	—	·91
Enteric Fever	168	18	—	18	8	—	32·96
Malta Fever	1	—	—	—	4	1	·37
Dysentery	82	—	—	—	3	—	6·68
Ague	212	—	—	—	3	—	8·99
Remittent Fever	4	—	—	—	—	—	·12
Erysipelas	21	—	—	—	—	—	2·12
Pyæmia	1	—	—	—	—	—	·04
Tubercle	6	—	—	—	2	2	1·39
,, of Lung	23	3	—	3	26	*30	8·38
Syphilis	367	1	—	1	10	2	37·24
Gonorrhœa	497	—	—	—	2	1	41·14
Soft Chancre	289	—	—	—	—	—	29·58
Bilharzia Hæmatobia	11	—	—	—	10	1	2·00
Tænia Solium	18	—	—	—	—	—	1·01
Ascaris Lumbricoides	1	—	—	—	—	—	·01
Phthirius Inguinalis	25	—	—	—	—	—	·49
Scabies	126	—	—	—	—	—	5·14
Ringworm	8	—	—	—	—	—	·38
Tinea Versicolor	4	—	—	—	—	—	·08
Alcoholism	21	1	—	1	—	—	1·01
Rheumatic Fever	50	—	—	—	6	2	6·52
Rheumatism	227	—	—	—	11	2	16·28
Gout	1	—	—	—	—	—	·11
Osteo-Arthritis	1	—	—	—	—	—	·02
Cyst Sebaceous	19	—	—	—	—	—	·85
Carried forward	2,323	25	—	25	86	41	211·26

* Includes 1 discharged in the Command.

outh Africa.

TABLE III—*continued.*

Average Strength, 18,000. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged.	Average Number Constantly Sick.
Brought forward	2,323	25	—	25	86	41	211·26
Non-malignant New Growth	16	—	—	—	—	—	1·42
Malignant New Growth	2	1	—	1	1	1	·30
Anæmia	3	—	—	—	—	—	·14
Diabetes Mellitus	1	1	—	1	—	—	·34
„ Insipidus	2	—	1	1	1	—	·51
Debility	85	—	—	—	11	1	6·12
Neuritis	9	—	—	—	—	—	·56
Inflammation of Membranes	1	1	—	1	—	—	·05
Hæmorrhage of Spinal Cord	1	—	—	—	—	—	·34
Degeneration of Spinal Cord	1	—	—	—	—	—	·16
Inflammation of Membranes of Brain ..	1	—	—	—	—	—	·17
„ of Brain	1	1	—	1	—	—	·04
Hæmorrhage of Brain	1	—	—	—	—	—	·03
Hemiplegia	5	—	—	—	2	—	·78
Chorea	1	—	—	—	—	—	·09
Torticollis	1	—	—	—	—	—	·04
Epilepsy	10	—	—	—	7	3	2·50
Vertigo	5	—	—	—	—	—	·19
Headache	18	—	—	—	—	—	·39
Neuralgia	18	—	—	—	1	—	·91
Facial Hemiatrophy	1	—	—	—	—	—	·08
Hysteria	1	—	—	—	—	1	·04
Nervous Weakness	4	—	—	—	1	—	·60
Mania	2	—	—	—	2	2	·55
Melancholia	6	—	—	—	4	8	1·75
Mental Stupor	1	—	—	—	—	2	·27
Delusional Insanity	3	—	—	—	2	*4	·82
Conjunctivitis	52	—	—	—	—	—	2·34
Keratitis	3	—	—	—	—	—	·68
„ Ulcerative	8	—	—	—	—	—	·92
Iritis	9	—	—	—	2	1	1·67
Choroiditis	1	—	—	—	1	1	·16
Congestion of Optic Disc	—	—	—	—	1	1	·20
Retinitis	3	—	—	—	—	—	·26
Lenticular Cataract	2	—	—	—	—	—	·08
Amblyopia	1	—	—	—	—	—	·28
Ametropia	14	—	—	—	1	1	1·00
Myopia	7	—	—	—	—	—	·21
Hypermetropia	4	—	—	—	1	—	·69
Astigmatism	2	—	—	—	1	—	·06
Diplopia	1	—	—	—	1	—	·40
Squint	2	—	—	—	—	—	·14
Abscess of Lacrymal Sac	3	—	—	—	—	—	·17
Carried forward	2,635	29	1	30	126	67	239·91

* Includes 1 discharged in the Command.

TABLE III—*continued.* *South Africa.*

Average Strength, 18,000. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged.	Average Number Constantly Sick.
Brought forward	2,635	29	1	30	126	67	239·71
Blepharitis Marginalis	3	—	—	—	—	—	·21
Stye	4	—	—	—	—	—	·07
Abscess of Eyelid	1	—	—	—	—	—	·02
Ptosis	1	—	—	—	—	—	·01
Inflammation of External Meatus ..	61	—	—	—	—	—	3·04
„ of Middle Ear	21	—	—	—	4	3	1·87
Suppuration of Middle Ear	7	1	—	1	2	—	·92
Perforation of Membrana Tympani ..	14	—	—	—	1	2	1·38
Tinnitus	1	—	—	—	—	—	·24
Deafness	8	—	—	—	2	1	·83
Rhinitis	3	—	—	—	—	—	·35
Inflammation of Naso Pharynx	3	—	—	—	—	—	·11
Hypertrophy of Pharyngeal Tonsil ..	4	—	—	—	—	—	·12
Pericarditis	—	—	—	—	—	—	—
Valvular Disease of Heart	30	2	1	3	16	14	4·83
Degeneration of Muscular Substance of Heart	—	1	—	1	—	—	—
Hypertrophy	1	—	—	—	1	—	·08
Dilatation	—	—	—	—	1	—	·03
Aneurysm of the Heart	1	1	—	1	—	—	—
Disordered Action of Heart	66	—	—	—	11	4	7·36
Dilatation of Artery	—	—	—	—	1	—	·01
Aneurysm	1	2	—	2	—	—	·03
Traumatic Aneurysm	1	—	—	—	1	—	·20
Embolism	1	—	—	—	—	—	·14
Phlebitis	1	—	—	—	—	—	·04
Thrombosis	5	—	—	—	—	2	·59
Varix	15	—	—	—	—	—	2·52
Laryngitis	20	—	—	—	—	—	1·10
Bronchitis	40	—	—	—	—	—	1·97
„ Catarrhal	271	—	—	—	1	—	10·85
Spasmodic Asthma	2	—	—	—	—	1	·08
Hæmorrhage of Lung	2	—	—	—	1	—	·11
Pneumonia	88	12	—	12	3	1	8·07
Broncho-Pneumonia	2	—	—	—	—	—	·26
Chronic Interstitial Inflammation ..	1	—	—	—	—	—	·11
Phthisis	1	—	—	—	—	—	·07
Pleurisy	17	—	—	—	—	—	1·47
Stomatitis	5	—	—	—	—	—	·27
Caries Dentine and Cementum	98	—	—	—	14	11	4·65
Inflammation of Dental Periosteum ..	16	—	—	—	—	—	·91
Abscess of Dental Periosteum	48	—	—	—	—	—	1·44
Inflammation of Gums	4	—	—	—	—	—	·17
Suppuration of Gums	3	—	—	—	—	—	·14
Necrosis	—	—	—	—	—	—	·04
Carried forward	3,516	48	2	50	185	106	296·42

South Africa.

TABLE III—*continued.*

Average Strength, 18,000. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged.	Average Number Constantly Sick.
Brought forward	3,516	48	2	50	183	106	296·42
Toothache	1	—	—	—	—	—	·01
Sore Throat	161	—	—	—	—	—	6·27
Tonsilitis	639	—	—	—	1	—	20·21
Inflammation of Salivary Glands .	2	—	—	—	—	—	·10
„ „ Pharynx	3	—	—	—	—	—	·07
„ „ Stomach	60	—	—	—	1	1	1·75
„ „ „ Catarrhal ..	72	—	—	—	2	—	3·29
Ulceration of Stomach	1	—	—	—	2	—	·39
Hæmatemesis	2	—	—	—	—	—	·30
Indigestion	95	—	—	—	1	—	3·02
Heartburn	1	—	—	—	—	—	·13
Enteritis	32	—	—	—	—	1	·93
Typhilitis	14	—	—	—	2	—	2·96
Colitis	7	—	—	—	—	—	·18
Hernia	31	—	—	—	1	—	4·01
Constipation	24	—	—	—	—	—	·62
Colic	154	—	—	—	—	—	3·33
Diarrhœa	141	—	—	—	—	—	5·17
Periproctitis	6	—	—	—	—	—	·36
Fissure of Anus	1	—	—	—	—	—	·04
Fistula in Ano	6	—	—	—	—	—	·79
Prolapse	—	—	—	—	—	—	·07
Piles	74	—	—	—	—	—	3·63
Hepatitis	30	2	—	2	3	1	3·48
Abscess of Liver	12	2	—	2	5	—	4·13
Congestion of Liver	8	—	—	—	—	—	·39
Acute Yellow Atrophy	1	1	—	1	—	—	·01
Jaundice	22	—	—	—	—	—	1·78
Inflammation of Hepatic Ducts	2	—	—	—	—	—	·12
Peritonitis	3	2	—	2	—	—	·04
Splenitis	1	—	—	—	—	—	·02
Inflammation of Lymphatic Glands ..	45	—	—	—	2	1	5·48
Suppuration of Lymphatic Glands ..	—	—	—	—	—	—	·16
Inflammation of Lymphatics	11	—	—	—	1	—	·37
Goitre	1	—	—	—	1	—	·13
Addison's Disease	1	—	1	1	1	—	·26
Acute Nephritis	3	1	—	1	—	—	·35
Bright's Disease	1	—	—	—	2	1	·43
Pyelitis	1	—	—	—	—	—	·07
Hæmaturia	3	—	—	—	—	—	·27
Phosphaturia	1	—	—	—	—	—	·07
Cystitis	5	—	—	—	—	—	·47
Irritability of Bladder	1	—	—	—	—	—	·09
Retention of Urine	3	—	—	—	—	—	·05
Incontinence of Urine	4	—	—	—	3	1	·89
Carried forward	5,202	56	3	59	213	112	373·11

TABLE III—*continued.*

Average Strength, 18,000. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged.	Average Number Constantly Sick.
Brought forward	5,202	56	3	59	213	112	373·11
Urethritis	1	—	—	—	—	—	·01
Stricture of Urethra	8	—	—	—	—	—	·60
Phimosis	7	—	—	—	—	—	·46
Paraphimosis	5	—	—	—	—	—	·18
Balanitis	20	—	—	—	—	—	·85
Inflammation of Scrotum	1	—	—	—	—	—	·03
,, of Spermatic Cord ..	1	—	—	—	—	—	·04
Hydrocele	2	—	—	—	—	—	·06
Hæmatocele	1	—	—	—	—	—	·01
Varicocele	18	—	—	—	—	—	1·15
Hydrocele	6	—	—	—	—	—	·24
Orchitis	54	—	—	—	—	—	2·42
Epididymitis	1	—	—	—	—	—	·05
Hæmatocele	1	—	—	—	—	—	·09
Inflammation of Male Breast	2	—	—	—	—	—	·11
Ostitis	—	—	—	—	—	1	—
Periostitis	11	—	—	—	1	—	1·46
Necrosis	3	—	—	—	2	—	·35
Inflammation of Joints	172	—	—	—	4	1	10·39
Ankylosis	2	—	—	—	1	—	·14
Dislocation of Articular Cartilage ..	—	—	—	—	—	1	—
Contracture of Muscles	—	—	—	—	—	1	—
Myalgia	45	—	—	—	—	—	2·46
Inflammation of Sheath of Tendons ..	2	—	—	—	1	—	·08
Thecal Abscess	1	—	—	—	—	—	·06
Ganglion	1	—	—	—	—	—	·07
Inflammation of Bursæ	4	—	—	—	—	—	·29
Bunion	1	—	—	—	—	—	·02
Flat Foot	2	—	—	—	—	—	·08
Deformities of Great Toe..	11	—	—	—	—	—	1·01
Inflammation of Connective Tissue ..	208	—	—	—	2	—	8·42
Abscess Connective Tissue	146	—	—	—	—	—	8·36
Emphysema	2	—	—	—	—	—	·04
Undue Formation of Fat..	—	—	—	—	—	1	—
Erythema	7	—	—	—	—	—	·17
Urticaria	20	—	—	—	—	—	·83
Eczema	59	—	—	—	—	—	4·57
Impetigo	19	—	—	—	—	—	1·15
Lichen	2	—	—	—	—	—	·06
Psoriasis	33	—	—	—	1	—	2·71
Herpes	7	—	—	—	—	—	·19
Zona	2	—	—	—	—	—	·07
Pemphigus	1	—	—	—	—	—	·04
Acne	2	—	—	—	—	—	·33
Sycosis	5	—	—	—	—	—	·30
Carried forward..	6,098	56	3	59	225	117	423·06

South Africa.

TABLE III—*continued.*

Average Strength, 18,000. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged.	Average Number Constantly Sick.
Brought forward	6,098	56	3	59	225	117	423·06
Ulcer	61	—	—	—	—	—	3·45
Boil	99	—	—	—	—	—	3·34
Carbuncle	8	—	—	—	—	—	·49
Whitlow	19	—	—	—	—	—	·97
Onychia	51	—	—	—	—	—	3·06
Corn	6	—	—	—	—	—	·76
Wen	1	—	—	—	—	—	·01
Hyperidrosis	2	—	—	—	—	—	·05
Bromidrosis	1	—	—	—	—	—	·04
Burns and Scalds	3	—	—	—	—	—	·17
Heatstroke	39	—	—	—	—	—	1·05
Sunstroke	2	—	—	—	—	—	·03
Multiple Injury	2	2	—	2	—	—	·34
Suffocation from Submersion	—	5	—	5	—	—	—
Burns and Scalds	10	—	—	—	—	—	·41
Abrasions	40	—	—	—	—	—	·89
Contusion	305	—	—	—	—	—	10·90
Wound	358	—	—	—	—	1	16·47
„ Punctured Penknife (Self-inflicted.	—	—	—	—	—	—	·03
„ Gunshot (Accidental)	11	3	—	3	1	2	1·30
„ „ (Self-inflicted)	3	1	—	1	—	—	·65
Sprain	219	—	—	—	—	—	8·77
Dislocation	18	—	—	—	—	2	1·06
Fracture	99	3	—	3	11	9	11·96
Effects of presence of Foreign Bodies ..	6	—	—	—	—	—	·24
„ of Mechanical Injuries	—	—	—	—	—	1	·02
Wound of Median Nerves	1	—	—	—	1	—	·04
Strain of Muscle	9	—	—	—	—	—	·71
Rupture of Muscle	2	—	—	—	1	—	·16
„ of Tendons	—	—	—	—	—	1	—
Wound of Scalp	1	—	—	—	—	—	·50
Fracture of Base of Skull	1	—	—	—	—	—	·37
Wound of Skull (self-inflicted)	—	1	—	1	—	—	—
Concussion of Brain	9	1	—	1	—	—	·98
Fracture of Jaw	6	—	—	—	—	—	·39
„ of Malar Bone	1	—	—	—	—	—	·07
Wound of Conjunctiva	1	—	—	—	—	—	·08
Contusion of Eyeball	1	—	—	—	—	—	·06
Foreign Body in Conjunctiva	2	—	—	—	—	—	·08
„ „ Eyeball	6	—	—	—	1	—	·45
Wound of Eyeball	8	—	—	—	2	—	1·36
Hæmatoma of Pinna	1	—	—	—	—	—	·06
Foreign Body in External Meatus ..	1	—	—	—	—	—	·01
Wound of Neck (self-inflicted)	5	1	—	1	—	—	·32
Carried forward	7,516	73	3	76	242	133	495·06

TABLE III—*continued.* *South Africa*

Average Strength, 18,000. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged.	Average Number Constantly Sick.
Brought forward	7,516	73	3	76	242	133	495·06
Rupture of Lung	—	1	—	1	—	—	—
Fracture of Spine	1	1	..	1	—	—	..
Foreign Body in Alimentary Canal ..	1	—	..	—	—	—	·02
Contusion of Testicle	3	..	..	..	—	—	·10
Wound of Male Urethra	1	—	—	—	—	—	·03
Foreign Body in Urethra	1	—	..	..	—	—	·02
Fracture of Clavicle	3	—	—	—	—	—	·37
„ of Humerus	1	..	..	..	—	—	·13
„ of Radius	3	—	—	—	—	—	·14
„ of Ulna	1	—	..	—	—	..	·14
„ of Radius and Ulna	1	..	..	—	—	—	·16
„ of Metacarpus	6	—	..	..	—	..	·24
Internal Derangement of Joints	1	..	—	..	..	..	·26
Fracture of Tibia and Fibula	1	..	..	..	—	..	·21
Lead Poisoning	1	—	—	..	—	..	·02
Mercury Poisoning	1	—	—	..	—	..	·04
Decayed and Poisonous Food	3	..	..	..	—	—	·06
No Appreciable Disease	56	—	—	..	—	—	1·34
Totals	7,600	75	3	78	242	133	498·34

ABSTRACT No. I.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS the TROOPS stationed in the UNITED KINGDOM during the Year 1906, with

Average Strength in Annual Returns, 113,532. Average Strength, including Men detached, 124,412. Diseases.	Admissions into Hospital.	Deaths. With the Regiment.	Deaths. Absent from the Regiment.	Deaths. Total.	Invalids Discharged the Service.
GENERAL DISEASES.					
Small-pox	—	—	—	—	—
Measles	85	—	—	—	—
Scarlet Fever	101	4	—	4	—
Other Eruptive Fevers	354	—	—	—	—
Influenza	2,041	1	—	1	—
Diphtheria	59	—	—	—	—
Enteric Fever	73	10	1	11	—
Malta Fever	33	—	—	—	9
Other Continued Fevers	78	1	—	1	—
Cholera	—	—	—	—	—
Dysentery	40	3	—	3	3
Yellow Fever	—	—	—	—	—
Malarial Fevers	398	2	—	2	5
Septic Diseases	45	5	—	5	—
Tubercle of Lung	274	29	—	29	238
Other Tubercular Diseases	54	9	—	9	27
Syphilis	3,030	4	—	4	52
Gonorrhœa	4,693	—	—	—	7
Soft Chancre	1,563	—	—	—	—
Hydrophobia	—	—	—	—	—
Scabies	2,199	—	—	—	—
Other Parasitic Diseases	254	—	—	—	13
Scurvy	—	—	—	—	—
Alcoholism	124	4	—	4	4
Rheumatic Fever	112	1	—	1	2
Rheumatism	1,301	3	—	3	46
Debility	657	—	—	—	55
Other General Diseases	506	16	2	18	33
LOCAL DISEASES.					
Diseases of the—					
Nervous System (Nervous)	610	19	1	20	123
Nervous System (Mental)	101	—	—	—	96
Eye	837	—	—	—	93
Other Organs of Special Sense	819	—	1	1	89
Valvular Disease of Heart	296	15	1	16	215
Disordered Action of Heart	482	—	—	—	91
Other Circulatory Diseases	300	33	—	33	54
Bronchitis	2,414	2	—	2	16
Pneumonia	420	54	5	59	1
Pleurisy	220	1	—	1	3
Other Respiratory Diseases	227	15	1	16	28
Digestive	9,271	32	4	36	214
Lymphatic	415	—	—	—	2
Urinary	208	16	—	16	43
Generative (except Soft Chancre)	943	—	—	—	13
Organs of Locomotion	1,658	3	—	3	115
Connective Tissue	2,121	3	—	3	2
Skin	3,544	—	—	—	20
INJURIES.					
General	59	26	—	26	2
Local	7,189	32	1	33	77
In Action	—	—	—	—	—
No appreciable disease	430	—	—	—	—
Details not available	—	—	—	—	—
Poisons	37	2	1	3	1
Suicides	—	(18)	(1)	(19)	—
Cause unknown (refers to deaths only)	—	—	—	—	—
General Total	50,715	345	18	363	1,792

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK, among the Ratios per 1,000 of the Strength, and the Average Ratios for 10 Years.

Average Number constantly Sick.	Ratio per 1,000.				Average Ratio per 1,000 from 1896 to 1905.			
	Admissions.	Deaths.*	Invalids finally Discharged.*	Constantly Sick.	Admissions.	Deaths.*	Invalids finally Discharged.*	Constantly Sick.
—	—	—	—	—	—	—	—	—
5·10	·7	—	—	·04				
13·72	·9	·03	—	·12	8·6	·05	—	·69
13·45	3·5	—	—	·12				
65·70	18·0	·01	—	·58	17·8	·03	·01	·64
8·91	·5	—	—	·03	·7	·02	—	·06
12·83	·6	·09	—	·11	1·1	·22	·02	·19
4·28	·3	—	·07	·04	2·0	·02	—	·07
3·52	·7	·01	—	·03				
—	—	—	—	—	—	—	—	—
3·91	·4	·02	·02	·03	·9	·02	·08	·07
—	—	—	—	—	—	—	—	—
19·09	3·5	·02	·01	·17	6·8	·02	·09	·28
2·91	·4	·01	—	·03	·9	·05	—	·06
31·11	2·4	·23	1·91	·27	3·1	·56	1·71	·42
5·29	·5	·07	·22	·05				
315·36	26·7	·03	·42	2·78	46·3	·06	·99	4·94
397·82	41·3	—	·06	3·42	58·9	—	·11	4·31
117·29	13·8	—	—	1·03	13·0	—	—	1·07
—	—	—	—	—	—	—	—	—
69·04	19·4	—	—	·61	27·5	—	·10	·94
8·61	2·2	—	·10	·08				
—	—	—	—	—	—	—	—	—
4·76	1·1	·03	·03	·04	2·1	·05	—	·08
17·91	1·0	·01	·02	·16	24·7	·05	·97	1·70
83·25	11·5	·02	·37	·73				
35·62	5·8	—	·44	·31	10·2	·01	1·61	·74
33·64	4·5	·14	·27	·30	4·6	·12	·37	·32
40·77	5·4	·16	·99	·36	7·5	·22	1·52	·51
12·33	·9	—	·77	·11	1·7	·02	1·08	·22
42·00	7·4	—	·75	·37	11·7	—	1·44	·70
41·75	7·2	·01	·72	·37	9·1	·02	1·37	·62
29·34	2·6	·13	1·73	·26				
36·11	4·2	—	·73	·32	14·1	·42	5·19	1·27
22·28	2·6	·26	·44	·20				
90·47	21·3	·02	·13	·80				
39·34	3·7	·47	·01	·35	45·4	·92	·93	2·33
19·10	1·9	·01	·02	·17				
14·68	2·0	·13	·23	·13				
380·82	81·7	·29	1·72	3·35	96·5	·29	2·88	3·52
33·57	3·7	—	·02	·40	7·4	—	·12	·71
17·18	1·8	·13	·35	·15	2·9	·11	·54	·25
49·15	8·3	—	·10	·43	12·3	—	·43	·66
93·91	14·6	·02	·92	·83	13·9	·01	1·96	·90
93·62	18·7	·02	·02	·82	24·8	·01	·09	1·06
159·56	31·2	—	·16	1·41	47·5	—	·27	2·15
2·36	·5	·21	·02	·02	·6	·30	·04	·04
330·68	63·3	·27	·62	2·91	91·6	·37	1·33	4·03
—	—	—	—	—	·8	—	·50	·06
13·51	3·8	—	—	·12	·3	—	—	·13
—	—	—	—	—	—	—	—	·03
1·01	·3	·02	·01	·01	4·0	·05	·01	·02
—	—	(·15)	—	—	—	—	—	—
—	—	—	—		—	·01	—	—
2,922·23	446·7	2·92	14·40	21·86	621·3	4·03	25·79	35·79

* These ratios are calculated on the strength including men detached.

ABSTRACT A.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into TROOPS stationed in ENGLAND and WALES during the Year 1906, with

Diseases. (Average Strength in Annual Returns, 86,533. Average Strength, including Men detached, 94,872.)	Admissions into Hospital.	Deaths. With the Regiment.	Deaths. Absent from the Regiment.	Deaths. Total.	Invalids Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.						
Small-pox	—	—	—	—	—	—
Measles	64	—	—	—	—	3·89
Scarlet Fever	69	2	—	2	—	9·27
Other Eruptive Fevers	373	—	—	—	—	12·71
Influenza	1,594	1	—	1	—	53·01
Diphtheria	52	—	—	—	—	3·46
Enteric Fever	51	8	1	9	—	8·84
Malta Fever	30	—	—	—	8	3·81
Other Continued Fevers	54	—	—	—	—	2·72
Cholera	—	—	—	—	—	—
Dysentery	25	3	—	3	2	2·49
Yellow Fever	—	—	—	—	—	—
Malarial Fevers	345	2	—	2	5	18·11
Septic Diseases	34	2	—	2	—	2·47
Tubercle of Lung	221	25	—	25	191	25·40
Other Tubercular Diseases	44	9	—	9	20	4·41
Syphilis	2,362	4	—	4	40	238·20
Gonorrhœa	3,402	—	—	—	6	285·91
Soft Chancre	1,044	—	—	—	—	76·00
Hydrophobia	—	—	—	—	—	—
Scabies	1,561	—	—	—	—	48·32
Other Parasitic Diseases	209	—	—	—	10	6·29
Scurvy	—	—	—	—	—	—
Alcoholism	93	4	—	4	4	3·61
Rheumatic Fever	72	1	—	1	—	11·45
Rheumatism	1,058	3	—	3	42	69·15
Debility	503	—	—	—	47	27·33
Other General Diseases	411	10	1	11	30	25·93
LOCAL DISEASES.						
Diseases of the—						
Nervous System — Nervous	499	17	1	18	104	34·45
Nervous System — Mental	71	—	—	—	66	7·94
Eye	620	—	—	—	77	31·75
Other Organs of Special Sense	687	—	1	1	74	35·96
Valvular Disease of Heart	209	9	1	10	158	20·12
Disordered Action of Heart	397	—	—	—	76	30·66
Other Circulatory Diseases	244	24	—	24	45	17·90
Bronchitis	1,765	2	—	2	14	69·17
Pneumonia	300	40	4	44	1	28·39
Pleurisy	179	1	—	1	2	15·25
Other Respiratory Diseases	175	7	1	8	22	11·18
Digestive	7,410	26	4	30	163	316·20
Lymphatic	318	—	—	—	2	23·93
Urinary	165	12		12	35	13·02
Generative (except Soft Chancre)	721	—	—	—	10	38·28
Organs of Locomotion	1,302	3	—	3	94	75·53
Connective Tissue	1,594	2	—	2	2	71·71
Skin	2,689	—	—	—	19	119·87
INJURIES.						
General	54	19	—	19	2	2·10
Local	5,252	27	1	28	53	234·58
In Action	—	—	—	—	—	—
No appreciable disease	333	—	—	—	—	10·30
Details not available	—	—	—	—	—	—
Poisons	31	1	1	2	1	·72
Suicides	—	(15)	(1)	(16)	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—
General Total	38,686	264	16	280	1,425	2,151·79

Hospital, Deaths, Numbers Invalided and Constantly Sick, among the the Ratios per 1,000 of the Strength, and the Average Ratios for 10 years.

Ratio per 1,000.				Average Ratio per 1,000 from 1896 to 1905.			
Admissions.	Deaths.*	Invalids finally Discharged.*	Constantly Sick.	Admissions.	Deaths.*	Invalids finally Discharged.*	Constantly Sick.
—	—	—	—	—	·01	—	—
·7	—	—	·04				
·8	·02	—	·11	9·8	·05	—	·79
4·3	—	—	·15				
18·4	·01	—	·61	19·8	·03	·01	·72
·6	—	—	·04	·8	·02	—	·06
·6	·09	—	·10	1·0	·21	·02	·18
·3	—	·08	·04	2·0	·03	—	·09
·6	—	—	·03				
—	—	—	—	—	—	—	—
·3	·03	·02	·03	·9	·02	·09	·08
—	—	—	—	—	—	—	—
4·0	·02	·05	·21	7·2	·02	·11	·30
·4	·02	—	·03	·9	·05	—	·07
2·6	·26	2·01	·29	3·0	·55	1·64	·41
·5	·09	·21	·05				
27·3	·04	·42	2·75	47·4	·06	1·06	5·24
39·3	—	·06	3·30	58·2	—	·12	4·58
12·1	—	—	·88	12·6	—	—	1·08
—	—	—	—	—	—	—	—
18·0	—	—	·56	26·3	—	·11	·91
2·4	—	·11	·07				
—	—	—	—	—	—	—	—
1·1	·04	·04	·04	2·1	·05	—	·09
·8	·01	—	·13	25·3	·05	·98	1·77
12·2	·03	·44	·80				
5·8	—	·50	·32	10·4	·01	1·80	·79
4·7	·12	·32	·30	4·7	·12	·38	·32
5·8	·19	1·10	·40	7·4	23	1·54	·52
·8	—	·70	·09	1·6	·02	1·06	·20
7·2	—	·81	·37	11·5	—	1·57	·69
7·9	·01	·78	·42	9·5	·02	1·42	·64
2·4	·11	1·67	·23	14·0	·41	5·34	1·28
4·6	—	·80	·35				
2·8	·25	·47	·21				
20·4	·02	·15	·80				
3·5	·47	·01	·33	45·5	·96	·97	2·35
2·1	·01	·02	·18				
2·0	·08	·23	·13				
85·6	·32	1·72	3·65	100·6	·29	2·84	3·69
3·7	—	·02	·28	7·5	—	·12	·74
1·9	·13	·37	·15	2·9	·12	·54	·25
8·3	—	·11	·44	12·2	—	·45	·67
15·0	·03	·09	·87	14·1	·01	2·04	·90
18·4	·02	·02	·83	24·3	·01	·09	1·05
31·1	—	·20	1·39	45·5	—	·28	2·07
·6	·20	·02	·02	·7	·29	·04	·04
60·7	·30	·56	2·71	88·2	·37	1·33	3·92
—	—	—	—	·8	—	·48	·06
3·8	—	—	·12	4·3	—	—	·14
—	—	—	—	—	—	—	·03
·4	·02	·01	·01	·3	·05	·01	·02
	(·17)	—	—	—	—	—	—
	—	—	—	—	·01	—	—
447·1	2·95	15·02	24·87	623·3	4·07	26·44	36·54

* These ratios are calculated on the strength including men detached.

ABSTRACT B.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS among the TROOPS stationed in SCOTLAND during the Year 1906, with

Average Strength in Annual Returns, 4,814. Average Strength, including men detached, 5,144. Diseases.	Admissions into Hospital.	Deaths. With the Regiment.	Deaths. Absent from the Regiment.	Deaths. Total.	Invalids Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.						
Small-pox	—	—	—	—	—	—
Measles	11	—	—	—	—	·35
Scarlet Fever	3	—	—	—	—	·33
Other Eruptive Fevers	6	—	—	—	—	·14
Influenza	73	—	—	—	—	2·20
Diphtheria	2	—	—	—	—	·13
Enteric Fever	2	1	—	1	—	·28
Malta Fever	—	—	—	—	—	—
Other Continued Fevers	1	1	—	1	—	·03
Cholera	—	—	—	—	—	—
Dysentery	4	—	—	—	—	·16
Yellow Fever	—	—	—	—	—	—
Malarial Fevers	7	—	—	—	—	·20
Septic Diseases	2	—	—	—	—	·09
Tubercle of Lung	6	1	—	1	4	·39
Other Tubercular Diseases	1	—	—	—	1	·26
Syphilis	115	—	—	—	2	12·23
Gonorrhœa	223	—	—	—	1	19·49
Soft Chancre	67	—	—	—	—	5·32
Hydrophobia	—	—	—	—	—	—
Scabies	140	—	—	—	—	3·42
Other Parasitic Diseases	8	—	—	—	—	·34
Scurvy	—	—	—	—	—	—
Alcoholism	3	—	—	—	—	·16
Rheumatic Fever	5	—	—	—	—	·42
Rheumatism	36	—	—	—	—	2·83
Debility	21	—	—	—	2	1·17
Other General Diseases	13	3	—	3	2	1·51
LOCAL DISEASES.						
Diseases of the—						
Nervous System (Nervous)	15	1	—	1	2	·84
Nervous System (Mental)	6	—	—	—	3	·56
Eye	19	—	—	—	1	1·40
Other Organs of Special Sense	14	—	—	—	4	·69
Valvular Disease of Heart	16	1	—	1	13	1·69
Disordered Action of Heart	9	—	—	—	2	·47
Other Circulatory Diseases	5	5	—	5	—	·18
Bronchitis	32	—	—	—	—	2·30
Pneumonia	20	5	1	6	—	1·16
Pleurisy	9	—	—	—	—	·51
Other Respiratory Diseases	13	—	—	—	4	1·31
Digestive	47	2	—	2	9	2·64
Lymphatic	10	—	—	—	—	1·75
Urinary	1	1	—	1	1	·88
Generative (except Soft Chancre)	11	—	—	—	—	1·79
Organs of Locomotion	8	—	—	—	6	·41
Connective Tissue	17	—	—	—	—	2·41
Skin	17	—	—	—	—	5·76
INJURIES.						
General	—	—	—	—	—	—
Local	21	1	—	1	7	12·29
By Arms	—	—	—	—	—	—
No apparent Cause	1	—	—	—	—	·07
Poisons	2	—	—	—	—	·11
[illegible]	—	—	—	—	—	—
Cause unknown [illegible]	—	—	—	—	—	—
General Total	779	25	1	26	94	131·83

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK, the Ratios per 1,000 of the Strength, and the Average Ratios for 10 years.

Ratio per 1,000.				Average Ratio per 1,000 from 1896 to 1905.			
Admissions.	Deaths.*	Invalids finally Discharged.*	Constantly Sick.	Admissions.	Deaths.*	Invalids finally Discharged.*	Constantly Sick.
—	—	—	—	·1	—	—	·01
2·3	—	—	·11	6·1	·04	—	·47
·6	—	—	·07				
1·2	—	—	·03				
15·1	—	—	·45	10·1	·04	—	·30
·4	—	—	·03	·2	—	—	·01
·4	·19	—	·06	·7	·13	—	·09
—	—	—	—	1·8	·02	—	·05
·4	·19	—	·01				
—	—	—	—	—	—	—	—
·8	—	—	·09	·2	—	·13	·05
—	—	—	—	—	—	—	—
1·5	—	—	·04	2·9	—	—	·10
·4	—	—	·02	1·0	·09	—	·05
1·2	·19	·78	·08	3·0	·81	1·59	·44
·2	—	·19	·05				
23·8	—	·39	2·52	33·9	·11	·58	2·75
46·0	—	·19	4·02	54·1	—	·09	3·06
13·8	—	—	1·10	11·9	—	—	·81
—	—	—	—	—	—	—	—
28·9	—	—	·71	24·8	—	·09	·61
1·7		—	·07				
—	—	—	—	—	—	·2	—
·6	—	—	·03	2·2	·13	—	·06
1·0	—	—	·09	19·3	·02	·67	1·15
7·4	—	—	·58				
4·3	—	·39	·24	6·1	—	·56	·31
2·7	·58	·39	·31	3·4	·09	·30	·28
3·1	·19	·39	·17	6·9	·28	1·42	·55
1·2	—	·58	·12	1·5	—	·90	·21
3·9	—	·19	·29	9·3	—	·83	·46
2·7	—	·78	·14	5·3	—	·79	·32
3·3	·19	2·53	·35	11·6	·58	3·28	·86
1·9	—	·39	·10				
1·0	·97	—	·04				
19·0	—	—	·17	39·3	1·12	·77	1·84
4·1	1·17	—	·24				
1·9	—	—	·11				
2·7	·58	·78	·27				
51·0	·39	1·75	1·87	65·0	·26	2·12	2·07
3·9	—	—	·37	5·1	·04	·07	·36
2·3	·19	·19	·18	2·4	·13	·36	·20
9·7	—	—	·43	12·3	—	·22	·51
14·3	—	1·17	·70	11·6	·02	1·07	·63
11·8	·19	—	·50	21·3	·02	·02	·82
28·3	—	—	1·18	44·5	—	·19	1·72
—	·39	—	—	·4	·51	·04	·04
44·2	·19	1·36	2·54	78·7	·58	1·07	3·03
—	—	—	—	·2	—	·41	·03
1·7	—		·05	3·1	—		·10
·6	·19	—	·02	·2	·04	—	·01
—	(·19)	—	—	—	—	—	—
—	—	—	—	—	·02	—	—
367·3	5·83	12·41	20·85	500·5	5·08	17·59	21·39

* These ratios are calculated on the strength including men detached.

ABSTRACT C.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS among the TROOPS stationed in IRELAND during the Year 1906, with

Average Strength in Annual Returns, 22,155. Average Strength, including Men detached, 24,396. — Diseases.	Admissions into Hospital.	Deaths.			Invalids Discharged the Service.	Average Number constantly Sick.
		With the Regiment.	Absent from the Regiment.	Total.		
GENERAL DISEASES.						
Small-pox	—	—	—	—	—	—
Measles	10	—	—	—	—	·66
Scarlet Fever	29	2	—	2	—	1·10
Other Eruptive Fevers	15	—	—	—	—	·60
Influenza	374	—	—	—	—	10·19
Diphtheria	5	—	—	—	—	·32
Enteric Fever	20	1	—	1	—	3·71
Malta Fever	3	—	—	—	1	·42
Other Continued Fevers	22	—	—	—	—	·77
Cholera	—	—	—	—	—	—
Dysentery	11	—	—	—	1	·98
Yellow Fever	—	—	—	—	—	—
Malarial Fevers	46	—	—	—	—	1·38
Septic Diseases	9	3	—	3	—	·35
Tubercle of Lung	47	3	—	3	43	5·32
Other Tubercular Diseases	9	—	—	—	6	·62
Syphilis	553	—	—	—	10	64·93
Gonorrhœa	1,056	—	—	—	—	82·42
Soft Chancre	452	—	—	—	—	35·97
Hydrophobia	—	—	—	—	—	—
Scabies	498	—	—	—	—	17·30
Other Parasitic Diseases	37	—	—	—	3	1·98
Scurvy	—	—	—	—	—	—
Alcoholism	28	—	—	—	—	·99
Rheumatic Fever	35	—	—	—	2	6·04
Rheumatism	207	—	—	—	4	11·27
Debility	133	—	—	—	6	7·12
Other General Diseases	82	3	1	4	1	6·20
LOCAL DISEASES.						
Diseases of the—						
Nervous System (Nervous)	96	1	—	1	17	5·48
Nervous System (Mental)	24	—	—	—	27	3·83
Eye	198	—	—	—	15	8·85
Other Organs of Special Sense	119	—	—	—	11	5·10
Valvular Disease of Heart	71	5	—	5	44	7·53
Disordered Action of Heart	76	—	—	—	13	4·98
Other Circulatory Diseases	51	4	—	4	9	4·20
Bronchitis	557	—	—	—	2	19·00
Pneumonia	100	9	—	9	—	9·79
Pleurisy	32	—	—	—	1	3·34
Other Respiratory Diseases	39	5	—	5	2	2·19
Digestive	1,614	4	—	4	42	55·58
Lymphatic	78	—	—	—	—	7·66
Urinary	32	3	—	3	7	3·30
Generative (except Soft Chancre)	175	—	—	—	3	8·78
Organs of Locomotion	287	—	—	—	15	14·97
Connective Tissue	470	—	—	—	—	19·50
Skin	718	—	—	—	1	33·99
INJURIES.						
General	5	5	—	5	—	·26
Local	1,723	4	—	4	17	83·81
In action	—	—	—	—	—	—
No appreciable disease	89					2·94
Poisons	3	—	—	—	—	·19
Accident		2		2		—
Cause unknown (refers to deaths only)		—		—	—	—
General Total	10,250	52	1	53	303	569·41

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK the Ratios per 1,000 of the Strength, and the Average Ratios for 10 Years.

Ratio per 1,000.				Average Ratio per 1,000 from 1896 to 1905.			
Admissions.	Deaths.*	Invalids finally Discharged.*	Constantly Sick.	Admissions.	Deaths.*	Invalids finally Discharged.*	Constantly Sick.
—	—	—	—	—	—	—	—
·5	—	—	·03				
1·3	·08	—	·19	4·7	·05	-	·37
·7	—	—	·03				
16·9	—	—	·47	12·0	·05	·01	·43
·2	—	—	·01	·4	·01	—	·04
·9	·04	—	·17	1·5	·28	—	·25
·1	—	·04	·02	2·2	·02	·02	·11
1·0	—	—	·03				
—	—	—	—	—	—	—	—
·5	—	·04	·04	·8	—	·06	·06
—	—	—	—	—	—	—	—
2·1	—	—	·06	5·9	·01	·04	·24
·4	·12	—	·02	·6	·03	—	·05
2·1	·12	1·76	·24	3·3	·51	1·98	·44
·4	—	·25	·03				
25·0	—	·41	2·93	45·2	04	·82	4·31
48·2	—	—	3·72	62·2	—	·08	4·33
20·4	—	—	1·62	14·5	—	—	1·10
—	—	—	—	—	—	—	—
22·5	—	—	·78	32·2	—	·06	1·14
1·7	—	·12	·09				
—	—	—	—	—	—	—	—
1·3	—	—	·04	2·2	·05	—	·08
1·6	—	·08	·27	23·9	·06	1·01	1·55
9·3	—	·16	·51				
6·0	—	·25	·32	10·5	·01	1·29	·65
3·7	·16	·04	·28	4·6	·10	·36	·30
4·3	·04	·70	·25	8·0	·18	1·45	·50
1·1	—	1·11	·17	1·9	·02	1·20	·30
8·9	—	·61	·40	13·3	—	1·12	·76
5·4	—	·45	·23	8·7	·01	1·33	·58
3·2	·21	1·80	·34				
3·4	—	·53	·22	15·0	·41	5·06	1·30
2·3	·16	·37	·19				
25·1	—	·08	·86				
4·5	·37	—	·44	46·4	·80	·80	2·35
1·4	—	·04	·15				
1·8	·21	·08	·10				
72·8	·16	1·72	2·51	88·5	·31	3·19	3·21
3·5	—	—	·35	7·6	—	·13	·69
1·4	·12	·29	·15	2·9	·06	·58	·28
7·9	—	·12	·40	12·7	—	·40	·66
13·0	—	·61	·68	13·9	·01	1·85	·95
21·2	—	—	·88	27·4	·01	·10	1·15
32·4	—	·04	1·53	55·5	—	·26	2·55
·2	·21	—	·01	·5	·30	·04	·02
77·8	·16	·70	3·78	106·3	·25	1·37	4·61
—	—	—	—	·9	—	·57	·07
4·0	—	—	·13	3·1	—	—	·10
·1	—	—	·01	·3	·03	—	·01
—	(·08)	—	—	—	—	—	—
—	—	-	—	—	·02	-	—
462·6	2·17	12·42	25·70	639·6	3·68	25·22	35·54

* These ratios are calculated on the strength including men detached.

ABSTRACT D.—TABLE showing the AVERAGE STRENGTH, SICKNESS, UNITED KINGDOM during the year 1906,

Diseases.	Average Strength. Officers, 4,441. Attacks of Illness.	Deaths.	Ratio per 1,000. Attacks.	Ratio per 1,000. Deaths.
GENERAL DISEASES.				
Small-pox	—	—	—	—
Measles	5	—	1·1	—
Scarlet Fever	1	—	·2	—
Other Eruptive Fevers	4	—	·9	—
Influenza	209	—	47·1	—
Diphtheria	1	—	·2	—
Enteric Fever	1	—	·2	—
Malta Fever	—	—	—	—
Other Continued Fevers	10	—	2·3	—
Cholera	—	—	—	—
Dysentery	7	—	1·6	—
Malarial Fevers	36	1	8·1	·23
Septic Diseases	2	—	·4	—
Tubercle of Lung	4	1	·9	·23
Other Tubercular Diseases	—	—	—	—
Syphilis	1	—	·2	—
Gonorrhœa	4	—	·9	—
Soft Chancre	—	—	—	—
Hydrophobia	—	—	—	—
Scabies	—	—	—	—
Other Parasitic Diseases	1	1	·2	·23
Scurvy	—	—	—	—
Alcoholism	2	—	·4	—
Rheumatic Fever	—	—	—	—
Rheumatism	35	—	7·9	—
Debility	13	—	2·9	—
Other General Diseases	13	—	2·9	—
LOCAL DISEASES.				
Diseases of the—				
Nervous System { Nervous	[illegible]	1	[illegible]	[illegible]
Nervous System { Mental	[illegible]	—	[illegible]	—
Eye	[illegible]	—	[illegible]	—
Other Organs of Special Sense	[illegible]	—	[illegible]	—
Valvular Disease of Heart	[illegible]	1	[illegible]	[illegible]
Disordered Action of Heart	[illegible]	—	[illegible]	—
Other Circulatory Diseases	[illegible]	[illegible]	[illegible]	[illegible]
Bronchitis	[illegible]	—	[illegible]	—
Pneumonia	[illegible]	—	[illegible]	—
Pleurisy	[illegible]	—	[illegible]	—
Other Respiratory Diseases	[illegible]	1	[illegible]	[illegible]
Digestive	[illegible]	[illegible]	[illegible]	[illegible]
Lymphatic	[illegible]	[illegible]	[illegible]	[illegible]
Urinary	[illegible]	[illegible]	[illegible]	[illegible]
Generative (except Soft Chancre)	[illegible]	[illegible]	[illegible]	[illegible]
Organs of Locomotion	[illegible]	[illegible]	[illegible]	[illegible]
Connective Tissue	[illegible]	[illegible]	[illegible]	[illegible]
Skin	[illegible]	—	[illegible]	—
INJURIES.				
General	[illegible]	[illegible]	[illegible]	[illegible]
Local	[illegible]	[illegible]	[illegible]	[illegible]
Privation	[illegible]	[illegible]	[illegible]	[illegible]
Poisons	[illegible]	[illegible]	[illegible]	—
Suicide	[illegible]	[illegible]	[illegible]	—
Violence (Accident)	[illegible]	[illegible]	[illegible]	—
Violence (Other than Accident)	[illegible]	[illegible]	[illegible]	—
Total	[illegible]	[illegible]	[illegible]	[illegible]

and MORTALITY among the OFFICERS, WOMEN, and CHILDREN in the with the Ratios per 1,000 of the Strength.

Women, 14,126.				Children, 26,565.			
Attacks of Illness.	Deaths.	Ratio per 1,000.		Attacks of Illness.	Deaths.	Ratio per 1,000.	
		Attacks.	Deaths.			Attacks.	Deaths.
—	—	—	—	—	—	—	—
4	—	·3	—	859	12	32·3	·45
11	—	·8	—	270	6	10·2	·23
6	—	·4	—	314	—	11·8	—
451	—	31·9	—	284	1	10·7	·04
7	—	·5	—	106	7	4·0	·26
6	—	·4	—	13	1	·5	·01
—	—	—	—	—	—	—	—
8	—	·6	—	112	—	4·2	—
—	—	—	—	—	—	—	—
5	—	·3	—	9	—	·3	—
37	—	2·6	—	59	—	2·2	—
10	4	·7	·28	7	3	·3	·11
42	8	3·0	·57	5	1	·2	·04
14	2	1·0	·14	62	13	2·3	·49
7	—	·5	—	13	6	·5	·23
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
4	—	·3	—	44	—	1·7	—
7	—	·5	—	272	—	10·2	—
—	—	—	—	1	—	·0	—
1	1	·1	·07	—	—	—	—
15	1	1·1	·07	12	—	·5	—
221	—	15·6	—	60	—	2·3	—
1,304	—	92·3	—	761	12	28·7	·45
345	7	24·4	·50	1,148	69	43·2	2·60
315	3	22·3	·21	219	51	8·2	1·92
6	—	·4	—	—	—	—	—
66	—	4·7	—	338	—	12·7	—
22	—	1·6	—	211	—	7·9	—
55	6	3·9	·42	21	4	·8	·15
41	—	2·9	—	12	—	·5	—
144	—	10·2	—	10	1	·4	·04
560	3	39·6	·21	3,291	30	123·9	1·13
23	2	1·6	·14	145	30	5·5	1·13
42	—	3·0	—	13	—	·5	—
55	3	3·9	·21	203	30	7·6	1·13
1,393	6	98·6	·42	3,729	83	140·4	3·12
20	—	1·4	—	134	2	5·0	·08
53	2	3·7	·14	24	1	·9	·04
743	10	52·6	·71	184	—	6·9	—
65	—	4·6	—	65	2	2·5	·08
126	—	8·9	—	249	—	9·4	—
183	—	12·9	—	663	1	25·0	·04
1	1	·1	·07	17	12	·6	·45
158	1	11·2	·07	731	6	27·5	·23
—	—	—	—	—	—	—	—
1	—	·1	—	3	1	·1	·04
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	9	—	·3	—
6,577	60	465·5	4·25	14,682	385	552·7	14·49

ABSTRACT E.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS taking part in MANŒUVRES in the SOUTH OF ENGLAND, from 1st August to 20th September, 1906, with ratios per 1,000 of the Strength.

Average Annual Strength, 1,201.	Admissions into Hospital.	Deaths.	Invalids.	Average Number constantly Sick.	Ratio per 1,000.			
Diseases.					Admissions.	Deaths.	Invalids.	Constantly Sick.
GENERAL DISEASES.								
Small-pox	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—	—
Other Eruptive Fevers	1	—	—	·06	·8	—	—	·05
Influenza	1	—	—	·07	·8	—	—	·06
Diphtheria	—	—	—	—	—	—	—	—
Enteric Fever	2	—	—	·11	1·7	—	—	·09
Malta Fever	—	—	—	—	—	—	—	—
Other Continued Fevers	2	—	—	·03	1·7	—	—	·02
Cholera	—	—	—	—	—	—	—	—
Dysentery	—	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—	—
Malarial Fevers	3	—	—	·02	2·5	—	—	·02
Septic Diseases	—	—	—	—	—	—	—	—
Tubercle of Lung	—	—	—	—	—	—	—	—
Other Tubercular Diseases	—	—	—	—	—	—	—	—
Syphilis	1	—	—	—	·8	—	—	—
Gonorrhœa	9	—	—	·34	7·5	—	—	·28
Soft Chancre	10	—	—	·22	8·3	—	—	·18
Hydrophobia	—	—	—	—	—	—	—	—
Scabies	5	—	—	·06	4·2	—	—	·05
Other Parasitic Diseases	1	—	—	·02	·8	—	—	·02
Scurvy	—	—	—	—	—	—	—	—
Alcoholism	—	—	—	—	—	—	—	—
Rheumatic Fever	—	—	—	—	—	—	—	—
Rheumatism	10	—	—	·19	8·3	—	—	·16
Debility	3	—	—	·04	2·5	—	—	·03
Other General Diseases	—	—	—	—	—	—	—	—
LOCAL DISEASES.								
Diseases of the—								
Nervous System (Nervous)	1	—	1	·09	·8	—	·83	·07
Nervous System (Mental)	—	—	—	—	—	—	—	—
Eye	5	—	—	·06	4·2	—	—	·05
Other Organs of Special Sense	4	—	—	·06	3·3	—	—	·05
Valvular Disease of Heart	1	—	—	—	·8	—	—	—
Disordered Action of Heart	—	—	—	—	—	—	—	—
Other Circulatory Diseases	1	—	—	·01	·8	—	—	·01
Bronchitis	11	—	—	·34	9·2	—	—	·28
Pneumonia	—	—	—	—	—	—	—	—
Pleurisy	3	—	—	·21	2·5	—	—	·17
Other Respiratory Diseases	—	1	—	—	—	·83	—	—
Digestive	40	1	—	·95	33·3	·83	—	·79
Lymphatic	2	—	—	·01	1·7	—	—	·01
Urinary	1	—	—	·01	·8	—	—	·01
Generative (except Soft Chancre)	1	—	—	·01	·8	—	—	·01
Organs of Locomotion	8	—	—	·18	6·7	—	—	·15
Connective Tissue	13	—	—	·39	10·8	—	—	·32
Skin	17	—	—	·43	14·2	—	—	·36
INJURIES.								
General	11	2	—	·19	9·2	1·67	—	·16
Local	36	—	—	1·02	30·0	—	—	·85
In Action	—	—	—	—	—	—	—	—
No appreciable disease	—	—	—	—	—	—	—	—
Poisons	2	—	—	·01	1·7	—	—	·01
Suicides	—	—	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—	—
General Total	205	4	1	5·13	170·7	3·33	·83	4·27

* The figures in this table are included in Abstracts No. I and A, United Kingdom and England and Wales.

ABSTRACT F.

ABSTRACT F.—TABLE showing the NUMBER OF CASES TREATED IN BARRACKS, KINGDOM during the year 1906, with

Diseases.	United Kingdom. Col. 1. Number of Cases under Treatment.	United Kingdom. Col. 2. Average Number constantly under Treatment.	Ratio per 1,000. Column 1.	Ratio per 1,000. Column 2.	England Col. 1. Number of Cases under Treatment.	England Col. 2. Average Number constantly under Treatment.
Average Strength.	113,532				66,533	
GENERAL DISEASES.						
Small-pox ...	—	—	—	—	—	—
Measles ...	—	—	—	—	—	—
Scarlet Fever ...	—	—	—	—	—	—
Other Eruptive Fevers ...	2,183	37·81	19·2	·33	1,871	33·23
Influenza...	675	8·24	5·9	·07	598	7·22
Diphtheria ...						
Enteric Fever ...	—	—	—	—	—	—
Malta Fever ...	1	·16	—	—	1	·16
Other Continued Fevers ...	10	·11	·1	—	10	·11
Cholera ...	—	—	—	—	—	—
Dysentery ...	8	·44	·1	—	8	·44
Yellow Fever ...	—	—	—	—	—	—
Malarial Fevers ...	392	5·15	3·5	·05	366	4·83
Septic Diseases ...	—	—	—	—	—	—
Tubercle of Lung ...	1	·04	—	—	1	·04
Other Tubercular Diseases ...	6	·01	·1	—	—	—
Syphilis ...	17	·32	·2	—	9	·12
Gonorrhœa ...	26	·69	·2	·01	20	·44
Soft Chancre ...	17	·19	·2	—	16	·15
Hydrophobia ...	—	—	—	—	—	—
Scabies ...	72	1·03	·6	·01	43	·73
Other Parasitic Diseases ...	163	2·24	1·4	·02	119	1·54
Scurvy ...	—	—	—	—	—	—
Alcoholism ...	8	·13	·1	—	8	·13
Rheumatic Fever ...	—	—	—	—	—	—
Rheumatism ...	1,017	16·83	9·0	·15	825	13·96
Debility ...	692	14·35	6·1	·13	580	12·04
Other General Diseases ...	125	3·18	1·1	·03	85	2·09
LOCAL DISEASES.						
Diseases of the—						
Nervous System } Nervous ...	335	7·73	3·2	·07	493	6·62
Nervous System } Mental ...	3	·09	—	—	1	·02
Eye ...	837	11·84	7·4	·10	631	8·55
Other Organs of Special Sense ...	860	13·[illegible]	7·6	·12	659	9·86
Valvular Disease of Heart ...	14	·58	·1	·01	14	·58
Disordered Action of Heart ...	234	4·36	2·1	·04	173	3·14
Other Circulatory Diseases ...	66	1·83	·6	·02	46	1·31
Bronchitis ...	3,334	38·61	29·[illegible]	·34	2,641	31·28
Pneumonia ...	1	·18	—	—	1	·18
Pleurisy ...	13	·32	·1	—	11	·21
Other Respiratory Diseases ...	37	1·02	·3	·01	32	·85
Digestive ...	6,720	87·03	59·2	·77	3,330	71·43
Lymphatic ...	219	3·13	1·9	·03	179	2·51
Urinary ...	40	·37	·3	·01	19	·29
Generative (except Soft Chancre) ...	151	2·22	1·3	·02	112	1·43
Organs of Locomotion ...	[illegible]	18·41	7·4	·16	653	14·[illegible]
Connective Tissue ...	3,[illegible]	42·92	25·2	·[illegible]	2,312	34·53
Skin ...	[illegible]	12[illegible]·17	56·9	1·10	5,848	89·62
INJURIES.						
General ...	20	·40	·2	—	16	·37
Local ...	[illegible]	208·92	[illegible]	2·10	12,375	169·47
In Action ...	—	—	—	—	—	—
Poisons ...	[illegible]	[illegible]	[illegible]	—	6	·08
[illegible] ...	—	—	—	—	—	—
Not appreciable Disease ...	[illegible]	[illegible]	[illegible]		[illegible]	·24
General Total	[illegible]	[illegible]	[illegible]	[illegible]	36,173	523·34

and the AVERAGE NUMBER CONSTANTLY UNDER TREATMENT in the UNITED the Ratios per 1,000 of the Strength.

and Wales.		Scotland.				Ireland.			
		4,844				22,156			
Ratio per 1,000.		Col. 1.	Col. 2.	Ratio per 1,000.		Col. 1.	Col. 2.	Ratio per 1,000.	
Column 1.	Column 2.	Number of Cases under Treatment.	Average Number constantly under Treatment.	Column 1.	Column 2.	Number of Cases under Treatment.	Average Number constantly under Treatment.	Column 1.	Column 2.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
21·6	·38	109	2·19	22·5	·45	203	2·39	9·2	·11
6·9	·08	13	·19	2·7	·04	64	·83	2·9	·04
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
·1	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
·1	·01	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
4·2	·06	8	·09	1·7	·02	18	·23	·8	·01
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	6	·01	·3	—
·1	—	6	·13	1·2	·03	2	·07	·1	—
·2	·01	4	·20	·8	·04	2	·05	·1	—
·2	—	1	·03	·2	·01	—	—	—	—
—	—	—	—	—	—	—	—	—	—
·5	·01	4	·04	·8	·01	25	·26	1·1	·01
1·4	·02	16	·19	3·3	·04	28	·51	1·3	·02
—	—	—	—	—	—	—	—	—	—
·1	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
9·6	·16	35	·75	7·2	·15	154	2·12	7·0	1
6·7	·14	17	·63	3·5	·13	95	1·68	4·3	·08
1·0	·02	7	·06	1·4	·0	33	1·03	1·5	·05
5·7	·08	22	·28	4·5	·06	80	·83	3·6	·04
—	—	—	—	—	—	2	·07	·1	—
7·3	·10	52	·78	10·7	·16	154	2·51	7·0	·11
7·6	·11	46	·85	9·5	·18	155	2·47	7·0	·11
·2	·01	—	—	—	—	—	—	—	—
2·0	·04	12	·31	2·5	·06	49	1·05	2·2	·05
·5	·02	5	·16	1·0	·03	15	·38	·7	·02
30·5	·36	92	·99	19·0	·20	621	6·34	28·0	·29
—	—	—	—	—	—	—	—	—	—
·1	—	—	—	—	—	4	·09	·2	—
·6	·01	8	·09	1·7	·02	7	·08	·3	—
61·8	·83	349	3·92	72·0	·81	1,021	11·70	46·1	·53
2·1	·03	6	·07	1·2	·01	34	·52	1·5	·02
·2	—	2	·04	·4	·01	9	·24	·4	·01
1·3	·02	9	·15	1·9	·03	30	·71	1·4	·03
7·5	·17	59	1·29	12·2	·27	129	2·24	5·8	·10
26·7	·40	141	2·40	29·1	·50	726	12·27	32·8	·55
65·3	1·04	343	5·86	70·8	1·21	1,607	29·66	72·5	1·34
·2	—	4	·07	·8	·01	—	—	—	—
146·4	1·96	913	13·58	188·5	2·80	3,367	55·37	152·0	2·50
—	—	—	—	—	—	—	—	—	—
·1	—	—	—	—	—	1	·08	—	—
—	—	—	—	—	—	—	—	—	—
·2	—	—	—	—	—	2	·01	·1	—
413·0	6·07	2,283	35·34	471·3	7·30	8,643	135·80	390·1	6·13

ABSTRACT No. II.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS the TROOPS stationed at GIBRALTAR during the year 1906, with the Ratios

Average Strength, 4,780. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—
Scarlet Fever	1	—	—	—	—	—	·11
Other Eruptive Fevers	—	—	—	—	—	—	—
Influenza	60	—	—	—	—	—	2·00
Diphtheria	1	—	—	—	—	—	·06
Enteric Fever	15	3	—	3	1	1	3·68
Malta Fever	—	—	—	—	—	—	—
Other Continued Fevers	14	—	—	—	—	—	·94
Cholera	—	—	—	—	—	—	—
Dysentery	2	—	—	—	—	—	·04
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	4	—	—	—	—	—	·15
Septic Diseases	1	—	—	—	—	—	·04
Tubercle of Lung	14	2	1	3	12	10	1·48
Other Tubercular Diseases	1	1	—	1	—	—	·03
Syphilis	65	—	—	—	—	—	7·97
Gonorrhœa	317	—	—	—	1	—	33·67
Soft Chancre	261	—	—	—	—	—	25·59
Hydrophobia	—	—	—	—	—	—	—
Scabies	34	—	—	—	—	—	·90
Other Parasitic diseases	2	—	—	—	—	—	·06
Scurvy	—	—	—	—	—	—	—
Alcoholism	6	—	—	—	—	—	·24
Rheumatic Fever	—	—	—	—	—	—	—
Rheumatism	38	—	—	—	—	—	3·38
Debility	7	—	—	—	—	—	·60
Other General Diseases	21	—	—	—	—	—	1·22
LOCAL DISEASES.							
Diseases of the—							
Nervous System { Nervous	12	2	—	2	5	2	1·29
Nervous System { Mental	2	—	—	—	3	4	·25
Eye	22	—	—	—	4	7	1·16
Other Organs of Special Sense	27	—	—	—	1	1	1·88
Valvular Disease of Heart	10	—	—	—	7	3	1·36
Disordered Action of Heart	18	—	—	—	2	2	·97
Other Circulatory Diseases	14	3	—	3	—	—	1·13
Bronchitis	23	—	—	—	—	—	1·13
Pneumonia	7	1	—	1	—	—	·57
Pleurisy	3	—	—	—	—	—	·20
Other Respiratory Diseases	5	—	—	—	—	—	·25
Digestive	212	—	—	—	—	1	9·31
Lymphatic	16	—	—	—	—	—	1·08
Urinary	9	1	—	1	2	3	1·47
Generative (except Soft Chancre)	42	—	—	—	—	—	2·54
Organs of Locomotion	19	—	—	—	3	3	1·14
Connective Tissue	58	—	—	—	—	—	1·31
Skin	59	—	—	—	—	—	3·17
INJURIES.							
General	5	2	—	2	2	1	·84
Local	152	2	1	3	1	—	9·47
In Action	—	—	—	—	—	—	—
No appreciable disease	13	—	—	—	—	—	·36
Poisons	—	—	—	—	—	—	—
Suicides	—	(2)	—	(2)	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	1,592	17	2	19	44	38	123·08

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among per 1,000 of the Strength, and the Average Ratios for 10 years.

Ratio per 1,000.					Average Ratio per 1,000 from 1896 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	·1	—	—	—	·01
—	—	—	—	—	} 1·2	—	—	—	·15
·2	—	—	—	·02					
—	—	—	—	—					
12·6	—	—	—	·42	4·7	—	—	—	·14
·2	—	—	—	·01	·1	—	—	—	·02
3·1	·63	·21	·21	·77	3·2	·83	·17	—	·55
—	—	—	—	—	} 9·2	·06	·72	·04	·86
2·9	—	—	—	·21					
—	—	—	—	—	—	—	—	—	—
·4	—	—	—	·01	·6	·02	·08	·02	·04
—	—	—	—	—	—	—	—	—	—
·8	—	—	—	·03	7·7	·02	·15	·04	·30
·2	—	—	—	·01	·3	·04	·02	—	·03
2·9	·63	2·51	2·09	·31	} 2·7	·68	2·01	1·53	·40
·2	·21	—	—	·01					
13·6	—	—	—	1·67	25·5	·02	1·10	·53	3·36
66·3	—	·21	—	7·04	97·3	—	·17	·04	8·44
54·6	—	—	—	5·35	59·0	—	—	—	5·85
—	—	—	—	—	—	—	—	—	—
7·1	—	—	—	·19	} 11·5	—	·04	—	·40
·4	—	—	—	·01					
—	—	—	—	—	—	—	—	—	—
1·3	—	—	—	·05	5·9	·11	·02	—	·25
—	—	—	—	—	} 16·8	·04	1·27	·19	1·33
8·0	—	—	—	·71					
1·5	—	—	—	·13	5·2	—	1·17	·19	·49
4·4	—	—	—	·26	5·0	·09	·25	·15	·38
2·5	·42	1·05	·42	·27	5·7	·13	1·21	·89	·43
·4	—	·63	·84	·05	1·7	·04	1·59	1·78	·39
4·6	—	·84	1·46	·24	7·2	—	1·19	·91	·52
5·6	—	·21	·21	·39	6·0	—	·40	·36	·42
2·1	—	1·46	·63	·28	} 7·0	·42	2·50	1·76	·80
3·8	—	·42	·42	·20					
2·9	·63	—	—	·24					
4·8	—	—	—	·24					
1·5	·21	—	—	·12	} 19·6	·30	·53	·36	1·37
·6	—	—	—	·04					
1·0	—	—	—	·05					
44·4	—	—	·21	1·95	67·6	·15	1·04	·53	2·30
3·3	—	—	—	·23	12·2	—	·55	·21	1·63
1·9	·21	·42	·63	·31	2·7	·17	·45	·19	·26
8·8	—	—	—	·53	10·4	·02	·19	·13	·65
4·0	—	·63	·63	·24	6·8	·02	·64	·42	·55
12·1	—	—	—	·27	19·6	—	·17	·13	·97
12·3	—	—	—	·66	27·9	—	·03	·04	1·49
1·0	·42	·42	·21	·18	·5	·21	·08	·06	·04
31·8	·63	·21	—	1·98	68·8	·70	·76	·49	3·46
—	—	—	—	—	—	—	—	—	—
2·7	—	—	—	·08	4·3	—	—	—	·16
—	—	—	—	—	·0	·04	—	—	·00
—	(·49)	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
333·1	3·97	9·21	7·95	25·75	524·0	4·11	18·85	10·99	38·44

ABSTRACT No. III.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS the TROOPS stationed at MALTA during the Year 1906, with the Ratios

Average Strength, 6,661. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	—	—	—	—	—	—	—
Measles	1	—	—	—	—	—	·04
Scarlet Fever	1	—	—	—	—	—	·34
Other Eruptive Fevers	—	—	—	—	—	—	—
Influenza	20	—	—	—	—	—	·71
Diphtheria	—	—	—	—	—	—	—
Enteric Fever	14	3	—	3	5	—	2·80
Malta Fever	161	3	1	4	165	3	42·55
Other Continued Fevers	508	—	—	—	1	—	13·08
Cholera	—	—	—	—	—	—	—
Dysentery	5	—	—	—	—	—	·64
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	6	—	—	—	1	—	·22
Septic Diseases	2	2	—	2	—	—	·05
Tubercle of Lung	5	—	—	—	12	15	1·09
Other Tubercular Diseases	2	—	—	—	2	2	·40
Syphilis	52	—	—	—	1	—	4·01
Gonorrhœa	429	—	—	—	—	—	42·68
Soft Chancre	169	—	—	—	—	—	11·61
Hydrophobia	—	—	—	—	—	—	—
Scabies	106	—	—	—	—	—	2·77
Other Parasitic Diseases	2	—	—	—	—	—	·07
Scurvy	—	—	—	—	—	—	—
Alcoholism	34	1	—	1	1	1	1·10
Rheumatic Fever	4	—	—	—	—	—	·35
Rheumatism	45	—	—	—	7	2	3·43
Debility	57	—	—	—	9	—	5·83
Other General Diseases	19	—	—	—	—	—	1·19
LOCAL DISEASES.							
Diseases of the—							
Nervous System { Nervous	31	—	—	—	11	*2	2·43
Nervous System { Mental	5	1	—	1	3	5	·46
Eye	44	—	—	—	6	7	2·00
Other Organs of Special Sense	51	1	—	1	6	5	2·09
Valvular Disease of Heart	5	—	—	—	4	6	·31
Disordered Action of Heart	13	—	—	—	3	1	1·61
Other Circulatory Diseases	16	2	—	2	3	2	·94
Bronchitis	69	—	—	—	—	—	2·40
Pneumonia	11	—	—	—	—	1	1·06
Pleurisy	6	—	—	—	—	—	·57
Other Respiratory Diseases	7	—	—	—	2	—	·88
Digestive	366	—	—	—	4	2	13·51
Lymphatic	29	—	—	—	3	1	3·14
Urinary	14	—	—	—	6	1	1·74
Generative (except Soft Chancre)	98	—	—	—	—	1	4·68
Organs of Locomotion	92	—	—	—	6	5	4·74
Connective Tissue	104	—	—	—	—	—	4·31
Skin	198	—	—	—	—	—	8·93
INJURIES.							
General	3	1	—	1	1	—	·45
Local	307	3	—	3	5	4	14·64
In Action	—	—	—	—	—	—	—
No appreciable disease	16	—	—	—	—	—	·82
Poisons	4	—	—	—	—	—	·20
Suicides	—	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	3,131	17	1	18	267	71	206·87

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among per 1,000 of the Strength and the Average Ratios for 10 years.

Ratio per 1,000.					Average Ratio per 1,000 from 1896 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	·1	·01	—	—	·01
·2	—	—	—	·01	·7	·01	—	—	·08
·2	—	—	—	·05					
—	—	—	—	—					
3·0	—	—	—	·11	3·6	·01	·01	—	·11
—	—	—	—	—	·1	—	—	—	·01
2·1	·45	·75	—	·42	5·6	1·79	1·26	·02	1·09
24·2	·60	24·77	1·20	6·39	177·9	1·27	15·26	·85	11·83
76·3	—	·15	—	1·96					
—	—	—	—	—	—	—	—	—	—
·8	—	—	—	·10	3·9	·11	·23	·05	·35
—	—	—	—	—	—	—	—	—	—
·9	—	·15	—	·03	15·2	·04	·97	·04	·74
·3	·30	—	—	·01	·4	·06	—	·01	·03
·8	—	1·80	2·25	·16	2·8	·70	2·15	1·65	·55
·3	—	·30	·30	·06					
7·8	—	·15	—	·60	30·1	·06	·88	·44	3·09
64·4	—	—	—	6·41	79·5	—	·17	·08	6·49
25·4	—	—	—	1·74	20·9	—	—	—	1·56
—	—	—	—	—	—	—	—	—	—
15·9	—	—	—	·42	13·4	·01	·02	·01	·55
·3	—	—	—	·01					
—	—	—	—	—	—	—	—	—	—
5·1	·15	·15	·15	·17	3·0	·15	·02	—	·14
·6	—	—	—	·05	17·3	·02	1·02	·24	1·26
6·8	—	1·05	·30	·51					
8·6	—	1·35	—	·88	9·4	—	2·07	·57	·85
2·9	—	—	—	·18	6·8	·08	·51	·16	·54
4·7	—	1·65	·30	·36	7·1	·21	1·49	1·19	·53
·8	·15	·45	·75	·07	1·7	·01	1·79	1·85	·49
6·6	—	·90	1·05	·30	12·2	—	1·35	·65	·80
7·7	·15	·90	·75	·31	11·5	·01	1·64	·69	·79
·8	—	·60	·90	·05	9·5	·48	4·22	2·73	1·20
2·0	—	·45	·15	·24					
2·4	·30	·45	·30	·14					
10·4	—	—	—	·36					
1·7	—	—	·15	·16	18·4	·40	·86	·42	1·23
·9	—	—	—	·09					
1·1	—	·30	—	·13					
54·9	—	·60	·30	2·03	94·0	·48	1·20	·39	3·28
4·4	—	·45	·15	·47	6·2	·01	·08	·04	·65
2·1	—	·90	·15	·26	1·6	·10	·23	·12	·16
14·7	—	—	·15	·70	15·9	—	·26	·12	·86
13·8	—	·20	·57	·71	10·5	·02	·98	·65	·78
15·6	—	—	—	·65	31·7	—	·15	·02	1·30
29·7	—	—	—	1·34	48·7	—	·20	·06	2·20
·5	·15	·15	—	·07	1·0	·75	·10	·06	·09
46·1	·45	·75	·60	2·20	80·3	·61	1·19	·50	3·85
—	—	—	—	—	—	—	—	·15	·00
2·4	—	—	—	·12	7·1	—	—	—	·27
·6	—	—	—	·03	·3	·01	·01	—	·01
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	·01	—	—	—
470·1	2·70	40·03	10·66	31·06	748·2	7·44	40·43	13·77	47·78

* Includes 1 invalid discharged in the Command.

ABSTRACT E.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS taking part in MANŒUVRES in the SOUTH OF ENGLAND, from 1st August to 20th September, 1906, with ratios per 1,000 of the Strength.

Average Annual Strength, 1,201.	Admissions into Hospital.	Deaths.	Invalids.	Average Number constantly Sick.	Ratio per 1,000.			
Diseases.					Admissions.	Deaths.	Invalids.	Constantly Sick.
GENERAL DISEASES.								
Small-pox	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—	—
Other Eruptive Fevers	1	—	—	·06	·8	—	—	·05
Influenza	1	—	—	·07	·8	—	—	·06
Diphtheria	—	—	—	—	—	—	—	—
Enteric Fever	2	—	—	·11	1·7	—	—	·09
Malta Fever	—	—	—	—	—	—	—	—
Other Continued Fevers	2	—	—	·03	1·7	—	—	·02
Cholera	—	—	—	—	—	—	—	—
Dysentery	—	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—	—
Malarial Fevers	3	—	—	·02	2·5	—	—	·02
Septic Diseases	—	—	—	—	—	—	—	—
Tubercle of Lung	—	—	—	—	—	—	—	—
Other Tubercular Diseases	—	—	—	—	—	—	—	—
Syphilis	1	—	—	—	·8	—	—	—
Gonorrhœa	9	—	—	·34	7·5	—	—	·28
Soft Chancre	10	—	—	·22	8·3	—	—	·18
Hydrophobia	—	—	—	—	—	—	—	—
Scabies	5	—	—	·06	4·2	—	—	·05
Other Parasitic Diseases	1	—	—	·02	·8	—	—	·02
Scurvy	—	—	—	—	—	—	—	—
Alcoholism	—	—	—	—	—	—	—	—
Rheumatic Fever	—	—	—	—	—	—	—	—
Rheumatism	10	—	—	·19	8·3	—	—	·16
Debility	3	—	—	·04	2·5	—	—	·03
Other General Diseases	—	—	—	—	—	—	—	—
LOCAL DISEASES.								
Diseases of the—								
Nervous System (Nervous)	1	—	1	·09	·8	—	·83	·07
Nervous System (Mental)	—	—	—	—	—	—	—	—
Eye	5	—	—	·06	4·2	—	—	·05
Other Organs of Special Sense	4	—	—	·06	3·3	—	—	·05
Valvular Disease of Heart	1	—	—	—	·8	—	—	—
Disordered Action of Heart	—	—	—	—	—	—	—	—
Other Circulatory Diseases	1	—	—	·01	·8	—	—	·01
Bronchitis	11	—	—	·34	9·2	—	—	·28
Pneumonia	—	—	—	—	—	—	—	—
Pleurisy	3	—	—	·21	2·5	—	—	·17
Other Respiratory Diseases	—	1	—	—	—	·83	—	—
Digestive	40	1	—	·95	33·3	·83	—	·79
Lymphatic	2	—	—	·01	1·7	—	—	·01
Urinary	1	—	—	·01	·8	—	—	·01
Generative (except Soft Chancre)	1	—	—	·01	·8	—	—	·01
Organs of Locomotion	8	—	—	·18	6·7	—	—	·15
Connective Tissue	13	—	—	·39	10·8	—	—	·32
Skin	17	—	—	·43	14·2	—	—	·36
INJURIES.								
General	11	2	—	·19	9·2	1·67	—	·16
Local	36	—	—	1·02	30·0	—	—	·85
In Action	—	—	—	—	—	—	—	—
No appreciable disease	—	—	—	—	—	—	—	—
Poisons	2	—	—	·01	1·7	—	—	·01
Suicides	—	—	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—	—
General Total	205	4	1	5·13	170·7	3·33	·83	4·27

* The figures in this table are included in Abstracts No. I and A, United Kingdom and England and Wales.

ABSTRACT F.

ABSTRACT F.—Table showing the Number of Cases treated in Barracks, [illegible] Kingdom during the year 1906, with

	United Kingdom.				England	
Average Strength.	113,5[illegible]				86,5[illegible]	
	Col. 1.	Col. 2.	Ratio per 1,000.		Col. 1.	Col. 2.
Diseases.	Number of Cases under Treatment.	Average Number constantly under Treatment.	Column 1.	Column 2.	Number of Cases under Treatment.	Average Number constantly under Treatment.
GENERAL DISEASES.						
Small-pox	—	—	—	—	—	—
Measles	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—
Other Eruptive Fevers	2,193	[illegible]	19·[illegible]	·33	1,571	33·23
Influenza	675	9·24	5·9	·07	5[illegible]	7·22
Diphtheria	—	—	—	—	—	—
Enteric Fever	—	—	—	—	—	—
Malta Fever	1	·16	—	—	1	·16
Other Continued Fevers	16	·11	·1	—	10	·11
Cholera	—	—	—	—	—	—
Dysentery	8	·44	·1	—	8	·44
Yellow Fever	—	—	—	—	—	—
Malarial Fevers	392	5·13	3·5	·06	366	4·83
Septic Diseases	—	—	—	—	—	—
Tubercle of Lung	1	·04	—	—	1	·04
Other Tubercular Diseases	6	·01	·1	—	—	—
Syphilis	17	·32	·2	—	9	·12
Gonorrhoea	28	·69	·2	·01	20	·44
Soft Chancre	17	·19	·2	—	16	·15
Hydrophobia	—	—	—	—	—	—
Scabies	72	1·[illegible]	·6	·01	43	·73
Other Parasitic Diseases	163	2·24	1·4	·02	119	1·54
Scurvy	—	—	—	—	—	—
Alcoholism	8	·13	·1	—	8	·13
Rheumatic Fever	—	—	—	—	—	—
Rheumatism	1,117	16·53	9·0	·15	825	13·96
Debility	692	14·35	6·1	·13	580	12·04
Other General Diseases	125	3·18	1·1	·03	95	2·09
LOCAL DISEASES.						
Diseases of the—						
Nervous System { Nervous	335	7·73	3·2	·07	493	6·62
Nervous System { Mental	3	·09	—	—	1	·02
Eye	837	11·84	7·4	·10	631	8·55
Other Organs of Special Sense	860	13·[illegible]	7·6	·12	659	9·86
Valvular Disease of Heart	14	·58	·1	·01	14	·38
Disordered Action of Heart	234	4·[illegible]	2·1	·04	173	3·14
Other Circulatory Diseases	66	1·83	·6	·02	46	1·31
Bronchitis	3,354	38·[illegible]	29·[illegible]	·34	2,641	31·28
Pneumonia	1	·18	—	—	1	·18
Pleurisy	15	·30	·1	—	11	·21
Other Respiratory Diseases	67	1·02	·6	·01	52	·85
Digestive	6,720	87·[illegible]	59·2	·77	5,350	71·43
Lymphatic	219	[illegible]	1·9	·03	173	2·54
Urinary	30	·37	·3	·01	19	·29
Generative (except Soft Chancre)	151	2·22	1·3	·02	112	1·43
Organs of Locomotion	841	18·41	7·4	·16	653	14·[illegible]
Connective Tissue	3,173	43·92	28·0	[illegible]	2,312	34·65
Skin	[illegible]	12[illegible]·17	66·9	1·10	5,648	89·65
INJURIES.						
General	20	·40	·2	—	16	·35
Local	16,[illegible]	238·92	149·[illegible]	2·10	12,573	169·97
In Action	—	—	—	—	—	—
Poisons	[illegible]	[illegible]	·1	—	6	·09
Suicides	—	—	—	—	—	—
No appreciable disease	17	·23	[illegible]	—	15	·24
General Total	47,099	696·48	414·9	6·13	36,173	525·34

and the AVERAGE NUMBER CONSTANTLY UNDER TREATMENT in the UNITED the Ratios per 1,000 of the Strength.

and Wales.		Scotland.				Ireland.			
		4,844				22,155			
Ratio per 1,000.		Col. 1.	Col. 2.	Ratio per 1,000.		Col. 1.	Col. 2.	Ratio per 1,000.	
Column 1.	Column 2.	Number of Cases under Treatment.	Average Number constantly under Treatment.	Column 1.	Column 2.	Number of Cases under Treatment.	Average Number constantly under Treatment.	Column 1.	Column 2.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
21·6	·38	109	2·19	22·5	·45	203	2·39	9·2	·11
6·9	·08	13	·19	2·7	·04	64	·83	2·9	·04
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
·1	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
·1	·01	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
4·2	·06	8	·09	1·7	·02	18	·23	·8	01
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	6	·01	·3	—
·1	—	6	·13	1·2	·03	2	·07	·1	—
·2	·01	4	·20	·8	·04	2	·05	·1	—
·2	—	1	·03	·2	·01	—	—	—	—
—	—	—	—	—	—	—	—	—	—
·5	·01	4	·04	·8	·01	25	·26	1·1	·01
1·4	·02	16	·19	3·3	·04	28	·51	1·3	·02
—	—	—	—	—	—	—	—	—	—
·1	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
9·6	·16	35	·75	7·2	·15	154	2·12	7·0	1
6·7	·14	17	·63	3·5	·13	95	1·68	4·3	·08
1·0	·02	7	·06	1·4	·01	33	1·03	1·5	·05
5·7	·08	22	·28	4·5	·06	80	·83	3·6	·04
—	—	—	—	—	—	2	·07	·1	—
7·3	·10	52	·78	10·7	·16	154	2·51	7·0	·11
7·6	·11	46	·85	9·5	·18	155	2·47	7·0	·11
·2	·01	—	—	—	—	—	—	—	—
2·0	·04	12	·31	2·5	·06	49	1·05	2·2	·05
·5	·02	5	·16	1·0	·03	15	·38	·7	·02
30·5	·36	92	·99	19·0	·20	621	6·34	28·0	·29
—	—	—	—	—	—	—	—	—	—
·1	—	—	—	—	—	4	·09	·2	—
·6	·01	8	·09	1·7	·02	7	·08	·3	—
51·8	·83	349	3·92	72·0	·81	1,021	11·70	46·1	·53
2·1	·03	6	·07	1·2	·01	34	·52	1·5	·02
·2	—	2	·04	·4	·01	9	·24	·4	·01
1·3	·02	9	·15	1·9	·03	30	·71	1·4	·03
7·5	·17	59	1·29	12·2	·27	129	2·24	5·8	·10
26·7	·40	141	2·40	29·1	·50	726	12·27	32·8	·55
65·3	1·04	343	5·86	70·8	1·21	1,607	29·66	72·5	1·34
·2	—	4	·07	·8	·01	—	—	—	—
145·4	1·96	913	13·58	188·5	2·80	3,367	55·37	152·0	2·50
—	—	—	—	—	—	—	—	—	—
·1	—	—	—	—	—	1	·08	—	—
—	—	—	—	—	—	—	—	—	—
·2	—	—	—	—	—	2	·01	·1	—
418·0	6·07	2,283	35·34	471·3	7·30	8,643	135·80	390·1	6·13

ABSTRACT No. IV.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS the TROOPS stationed at CRETE during the Year 1906, with the

Average Strength, 843. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—
Scarlet Fever	1	—	—	—	—	—	·10
Other Eruptive Fevers	—	—	—	—	—	—	—
Influenza	3	—	—	—	—	—	·07
Diphtheria	—	—	—	—	—	—	—
Enteric Fever	2	1	—	1	—	—	·47
Malta Fever	1	—	—	—	—	—	·18
Other Continued Fevers	39	—	—	—	—	—	1·50
Cholera	—	—	—	—	—	—	—
Dysentery	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	60	—	—	—	—	—	1·50
Septic Diseases	—	—	—	—	—	—	—
Tubercle of Lung	1	—	—	—	1	—	·15
Other Tubercular Diseases	—	—	—	—	—	—	—
Syphilis	3	—	—	—	—	—	·24
Gonorrhœa	25	—	—	—	—	—	2·19
Soft Chancre	5	—	—	—	—	—	·44
Hydrophobia	—	—	—	—	—	—	—
Scabies	—	—	—	—	—	—	—
Other Parasitic Diseases	—	—	—	—	—	—	—
Scurvy	—	—	—	—	—	—	—
Alcoholism	—	—	—	—	—	—	—
Rheumatic Fever	—	—	—	—	—	—	—
Rheumatism	6	—	—	—	—	—	1·09
Debility	4	—	—	—	1	—	·21
Other General Diseases	2	—	—	—	—	—	·04
LOCAL DISEASES.							
Diseases of the—							
Nervous System—Nervous	—	—	—	—	1	—	·15
Nervous System—Mental	3	—	—	—	1	1	·39
Eye	2	—	—	—	1	—	·23
Other Organs of Special Sense	1	—	—	—	—	—	·03
Valvular Disease of Heart	1	—	—	—	3	—	·46
Disordered Action of Heart	1	—	—	—	—	—	·08
Other Circulatory Diseases	1	1	—	1	—	—	·06
Bronchitis	11	—	—	—	—	—	·36
Pneumonia	2	1	—	1	—	—	·47
Pleurisy	2	—	—	—	—	—	·05
Other Respiratory Diseases	—	—	—	—	—	—	—
Digestive	22	—	—	—	—	—	·88
Lymphatic	3	—	—	—	—	—	·27
Urinary	1	—	—	—	—	—	·10
Generative (except Soft Chancre)	3	—	—	—	—	—	·19
Organs of Locomotion	7	—	—	—	—	—	·32
Connective Tissue	14	—	—	—	—	—	1·03
Skin	12	—	—	—	—	—	·40
INJURIES.							
General	2	—	—	—	—	—	·05
Local	20	1	—	1	1	—	1·04
In Action	—	—	—	—	—	—	—
No appreciable disease	2	—	—	—	—	—	·02
Poisons	—	—	—	—	—	—	—
Suicides	—	(1)	—	(1)	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	262	4	—	4	9	1	14·83

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among Ratios per 1,000 of the Strength, and the Average Ratios for 9 years.

Ratio per 1,000.					Average Ratio per 1,000 from 1897 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	·6	—	—	—	·07
—	—	—	—	—					
1·2	—	—	—	·12	1·2	·14	—	—	·17
—	—	—	—	—					
3·6	—	—	—	·08	·3	—	—	—	·00
—	—	—	—	—	·3	—	—	—	·02
2·4	1·19	—	—	·56	24·6	6·78	·69	—	2·14
1·2	—	—	—	·21	224·5	·42	·55	—	6·21
46·3	—	—	—	1·78					
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	25·2	1·52	—	—	1·16
—	—	—	—	—	—	—	—	—	—
71·2	—	—	—	1·78	658·0	·97	·14	—	19·63
—	—	—	—	—	·3	—	—	—	·02
1·2	—	1·19	—	·18	1·2	·14	·14	—	·29
—	—	—	—	—					
3·6	—	—	—	·28	18·6	·14	—	—	1·22
29·7	—	—	—	2·60	65·5	—	—	—	4·90
5·9	—	—	—	·52	14·1	—	—	—	·96
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	8·3	—	—	—	·33
—	—	—	—	—					
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	2·1	·14	—	—	·09
—	—	—	—	—	14·4	·14	·14	—	·62
7·1	—	—	—	1·29					
4·7	—	1·19	—	·25	19·8	—	·28	—	·57
2·4	—	—	—	·05	8·7	·14	—	—	·84
—	—	1·19	—	·18	3·5	—	·41	—	·29
3·6	—	1·19	1·19	·46	·8	—	·41	·14	·13
2·4	—	1·19	—	·27	11·6	—	—	—	·46
1·2	—	—	—	·04	8·4	—	—	—	·32
1·2	—	3·56	—	·55					
1·2	—	—	—	·09	7·9	—	·69	—	·69
1·2	1·19	—	—	·07					
13·0	—	—	—	·43					
2·4	1·19	—	—	·56	20·6	·42	—	—	·85
2·4	—	—	—	·06					
—	—	—	—	—					
26·1	—	—	—	1·04	102·5	·69	·28	—	2·59
3·6	—	—	—	·32	5·8	—	—	—	·35
1·2	—	—	—	·12	1·5	·28	—	—	·08
3·6	—	—	—	·23	14·1	—	—	—	·64
8·3	—	—	—	·38	13·4	—	·28	—	·67
16·6	—	—	—	1·22	26·2	—	—	—	·99
14·2	—	—	—	·47	62·7	—	—	—	2·47
2·4	—	—	—	·06	8·3	1·38	—	—	·21
23·7	1·19	1·19	—	1·23	84·6	2·08	—	—	3·18
—	—	—	—	—	·3	—	—	—	·05
2·4	—	—	—	·11	2·1	—	—	—	·03
—	—	—	—	—	·3	·42	—	—	·00
—	(1·19)	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
310·8	4·75	10·68	1·19	17·59	1462·3	15·79	4·02	·14	53·29

ABSTRACT No. IIIA.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS ROYAL MALTA ARTILLERY stationed at MALTA during the year 1906,

Average Strength, 546. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number Sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—
Other Eruptive Fevers	—	—	—	—	—	—	—
Influenza	14	—	—	—	—	—	·54
Diphtheria	—	—	—	—	—	—	—
Enteric Fever	—	—	—	—	—	—	—
Malta Fever	8	—	—	—	—	—	2·88
Other Continued Fevers	12	—	—	—	—	—	·39
Cholera	—	—	—	—	—	—	—
Dysentery	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	—	—	—	—	—	—	—
Septic Diseases	—	—	—	—	—	—	—
Tubercle of Lung	1	—	—	—	—	1	·04
Other Tubercular Diseases	—	—	—	—	—	—	—
Syphilis	1	—	—	—	—	—	·06
Gonorrhœa	11	—	—	—	—	—	1·01
Soft Chancre	—	—	—	—	—	—	—
Hydrophobia	—	—	—	—	—	—	—
Scabies	—	—	—	—	—	—	—
Other Parasitic Diseases	1	—	—	—	—	—	·04
Scurvy	—	—	—	—	—	—	—
Alcoholism	—	—	—	—	—	—	—
Rheumatic Fever	—	—	—	—	—	—	—
Rheumatism	3	—	—	—	—	—	·54
Debility	1	—	—	—	—	—	·10
Other General Diseases	2	—	—	—	—	—	·03
LOCAL DISEASES.							
Diseases of the—							
Nervous System { Nervous	2	—	—	—	—	—	·11
Nervous System { Mental	—	—	—	—	—	—	—
Eye	12	—	—	—	—	—	·70
Other Organs of Special Sense	3	—	—	—	—	—	·15
Valvular Disease of Heart	—	—	—	—	—	—	—
Disordered Action of Heart	—	—	—	—	—	—	—
Other Circulatory Diseases	—	—	—	—	—	—	—
Bronchitis	3	—	—	—	—	—	·19
Pneumonia	1	—	—	—	—	—	·03
Pleurisy	—	—	—	—	—	—	—
Other Respiratory Diseases	8	1	—	1	—	—	·20
Digestive	23	—	—	—	—	—	·94
Lymphatic	—	—	—	—	—	—	·12
Urinary	—	—	—	—	—	—	—
Generative (except Soft Chancre)	5	—	—	—	—	—	·15
Organs of Locomotion	2	—	—	—	—	—	·04
Connective Tissue	8	—	—	—	—	—	·45
Skin	21	—	—	—	—	1	·95
INJURIES.							
General	—	—	—	—	—	—	—
Local	27	—	—	—	—	—	1·03
In Action	—	—	—	—	—	—	—
No appreciable disease	1	—	—	—	—	—	·01
Poisons	—	—	—	—	—	—	—
Suicides	—	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	170	1	—	1	—	2	10·70

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among per 1,000 of the Strength, and the Average Ratios for 10 years.

Ratio per 1,000.					Average Ratio per 1,000 from 1896 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	1·8	—	—	—	·04
—	—	—	—	—	13·7	—	—	—	·71
—	—	—	—	—	—	—	—	—	—
—	—	—	—	·19	7·1	1·79	—	—	1·13
—	—	—	—	—	43·8	—	—	—	1·87
9·4	—	—	—	·19	—	—	—	—	—
—	—	—	—	—	·9	—	—	—	·17
—	—	—	—	—	—	—	—	—	—
37·7	—	—	—	3·97	84·9	1·79	—	—	2·52
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·9	—	·89	—	·08
103·8	—	—	—	10·57	86·7	·89	—	—	7·44
47·2	—	—	—	4·34	144·8	—	—	—	9·89
37·7	—	—	—	8·11	43·8	—	—	—	2·69
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	14·3	—	—	—	·34
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	2·7	—	—	—	·09
—	—	—	—	—	17·9	—	—	—	·93
9·4	—	—	—	·19	14·3	—	—	—	·46
—	—	—	—	—	8·0	·89	—	—	·25
—	—	—	—	—	·9	—	—	—	·21
9·4	—	9·43	—	·85	—	—	—	—	—
9·4	—	—	—	·19	9·8	—	—	—	·61
9·4	—	—	—	·19	9·8	—	—	—	·32
—	—	—	—	—	8·0	—	—	—	·63
—	—	—	—	—	17·9	—	—	—	·78
28·3	—	—	—	2·17	130·5	·89	—	—	4·06
—	—	—	—	—	17·9	—	—	—	1·08
9·4	—	—	—	·57	3·6	—	—	—	·14
9·4	—	—	—	·28	27·7	—	—	—	·93
—	—	—	—	—	23·2	—	—	—	1·29
9·4	—	—	—	·09	30·4	—	—	—	·65
28·3	—	—	—	1·04	65·2	—	—	—	1·88
—	—	—	—	—	3·6	—	—	—	·07
28·3	—	—	—	·94	123·3	·89	—	—	3·76
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	1·8	—	—	—	·11
—	—	—	—	—	·9	·89	—	—	·01
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
386·3	—	9·43	—	33·87	965·1	8·04	·89	—	45·14

ABSTRACT No. VI.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS the TROOPS stationed at BERMUDA during the Year 1906, with the Ratios

Average Strength, 1,331. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—
Other Eruptive Fevers	1	—	—	—	—	—	·03
Influenza	31	—	—	—	—	—	·91
Diphtheria	—	—	—	—	—	—	—
Enteric Fever	10	1	—	1	—	—	1·26
Malta Fever	6	—	—	—	—	—	1·07
Other Continued Fevers	4	—	—	—	—	—	·10
Cholera	—	—	—	—	—	—	—
Dysentery	1	—	—	—	—	—	·07
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	2	—	—	—	—	—	·03
Septic Diseases	1	—	—	—	1	—	·41
Tubercle of lung	6	1	—	1	6	4	1·73
Other Tubercular Diseases	1	—	—	—	—	—	·25
Syphilis	16	—	—	—	1	—	1·75
Gonorrhœa	21	—	—	—	—	—	2·28
Soft Chancre	15	—	—	—	—	—	1·04
Hydrophobia	—	—	—	—	—	—	—
Scabies	10	—	—	—	—	—	·37
Other Parasitic Diseases	6	—	—	—	—	—	·26
Scurvy	—	—	—	—	—	—	—
Alcoholism	4	—	—	—	—	—	·32
Rheumatic Fever	—	—	—	—	—	—	—
Rheumatism	12	—	—	—	2	1	·59
Debility	5	—	—	—	1	1	·33
Other General Diseases	3	—	—	—	—	—	·08
LOCAL DISEASES.							
Diseases of the—							
Nervous System (Nervous)	11	—	—	—	2	1	·92
Nervous System (Mental)	3	—	—	—	4	5	·40
Eye	6	—	—	—	1	1	·29
Other Organs of Special Sense	21	—	—	—	1	3	1·17
Valvular Disease of Heart	1	—	—	—	1	1	·28
Disordered Action of Heart	4	—	—	—	—	—	·56
Other Circulatory Diseases	1	—	—	—	—	—	·06
Bronchitis	17	—	—	—	—	—	·57
Pneumonia	1	—	—	—	—	—	·08
Pleurisy	1	—	—	—	—	—	·08
Other Respiratory Diseases	1	—	—	—	—	—	·08
Digestive	103	—	—	—	1	—	4·27
Lymphatic	3	—	—	—	—	—	·88
Urinary	4	—	—	—	—	—	·37
Generative (except Soft Chancre)	4	—	—	—	—	—	·17
Organs of Locomotion	14	—	—	—	—	—	·84
Connective Tissue	26	—	—	—	—	—	1·28
Skin	21	—	—	—	—	1	·87
INJURIES.							
General	1	—	—	—	—	—	·01
Local	111	3	—	3	2	2	5·88
In Action	—	—	—	—	—	—	—
No appreciable disease	3	—	—	—	—	—	·25
Poisons	—	—	—	—	—	—	—
Suicides	—	(1)	—	(1)	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	517	5	—	5	23	20	32·11

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among per 1,000 of the Strength, and the Average Ratios for 10 Years.

Ratio per 1,000.					Average Ratio per 1,000 from 1896 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	} ·6	—	—	—	·05
·3	—	—	—	·02					
23·3	—	—	—	·68	14·7	—	·06	—	·45
—	—	—	—	—	—	—	—	—	—
7·5	·75	—	—	·95	18·3	1·96	·90	·06	3·28
4·5	—	—	—	·80	} 16·1	—	·22	—	·84
3·0	—	—	—	·08					
—	—	—	—	—	—	—	—	—	—
·3	—	—	—	·05	3·1	·22	·56	—	·26
—	—	—	—	—	—	—	—	—	—
1·5	—	—	—	·02	17·4	·11	7·23	—	2·00
·3	—	·75	—	·31	·2	·17	—	—	·01
4·5	·75	4·51	3·01	1·30	} 2·5	·73	1·51	1·06	·34
·3	—	—	—	·19					
12·0	—	·75	—	1·31	16·0	·11	1·12	·45	2·17
15·8	—	—	—	1·71	16·0	—	·11	—	1·31
11·3	—	—	—	·78	1·8	—	—	—	·16
—	—	—	—	—	—	—	—	—	—
7·5	—	—	—	·28	} 17·1	—	—	—	·47
4·5	—	—	—	·20					
—	—	—	—	—	—	—	—	—	—
3·0	—	—	—	·24	4·6	·06	—	—	·17
—	—	—	—	—	} 12·1	—	·73	·11	·72
9·0	—	1·50	·75	·44					
3·8	—	·75	·75	·25	13·9	—	4·15	·45	1·02
2·3	—	—	—	·06	3·5	·06	·39	·06	·24
3·3	—	1·50	·75	·69	5·3	·11	1·68	1·29	·43
2·3	—	3·01	3·76	·30	1·8	—	1·51	1·57	·37
4·5	—	·75	·75	·22	9·4	—	1·01	·56	·48
15·8	—	·75	2·25	·88	12·2	—	1·96	1·29	·81
·3	—	·75	·75	·21					
3·0	—	—	—	·42	} 8·7	·28	2·30	1·18	·75
·3	—	—	—	·05					
12·8	—	—	—	·43					
·3	—	—	—	·06					
·3	—	—	—	·06	} 16·1	·56	·84	·28	·99
·3	—	—	—	·06					
81·1	—	·75	—	3·21	69·4	·22	1·91	·39	2·49
2·3	—	—	—	·60	4·0	—	·17	·06	·32
3·0	—	—	—	·28	2·4	·11	·34	·17	·22
3·0	—	—	—	·13	7·1	—	·39	·05	·39
10·5	—	—	—	·63	10·5	—	·67	·45	·58
19·5	—	—	—	·96	34·5	—	·06	·05	1·29
15·8	—	—	·75	·65	36·3	—	·11	·45	1·57
·3	—	—	—	·01	·7	1·07	—	—	·03
83·4	2·25	1·50	1·50	4·42	84·8	·45	1·29	—	3·71
—	—	—	—	—	—	—	—	—	—
2·3	—	—	—	·19	3·0	—	—	—	·12
—	—	—	—	—	·3	—	—	—	·01
—	(·75)	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
388·4	3·76	17·28	15·03	24·12	464·3	6·22	31·21	9·97	28·05

ABSTRACT No. VII.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS EUROPEAN TROOPS stationed at WESTERN AFRICA during the Year 1906, with

Average Strength, 232. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—
Other Eruptive Fevers	—	—	—	—	—	—	—
Influenza	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—
Enteric Fever	—	—	—	—	—	—	—
Malta Fever	—	—	—	—	—	—	—
Other Continued Fevers	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—
Dysentery	1	—	—	—	—	—	·15
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	110	1	—	1	8	—	5·08
Septic Diseases	—	—	—	—	—	—	—
Tubercle of Lung	—	—	—	—	—	—	—
Other Tubercular Diseases	—	—	—	—	—	—	—
Syphilis	17	—	—	—	2	—	2·07
Gonorrhœa	24	—	—	—	—	—	1·56
Soft Chancre	17	—	—	—	—	—	1·58
Hydrophobia	—	—	—	—	—	—	—
Scabies	—	—	—	—	—	—	—
Other Parasitic Diseases	2	—	—	—	—	—	·02
Scurvy	—	—	—	—	—	—	—
Alcoholism	1	—	—	—	1	—	·05
Rheumatic Fever	—	—	—	—	—	—	—
Rheumatism	3	—	—	—	1	—	·21
Debility	4	—	—	—	—	—	·14
Other General Diseases	—	—	—	—	—	—	—
LOCAL DISEASES.							
Diseases of the—							
Nervous System { Nervous	4	—	—	—	2	—	·33
Nervous System { Mental	—	—	—	—	—	—	—
Eye	1	—	—	—	—	—	·02
Other Organs of Special Sense	6	—	—	—	—	—	·39
Valvular Disease of Heart	—	—	—	—	—	—	—
Disordered Action of Heart	1	—	—	—	—	—	·04
Other Circulatory Diseases	—	—	—	—	—	—	—
Bronchitis	2	—	—	—	—	—	·02
Pneumonia	—	—	—	—	—	—	—
Pleurisy	—	—	—	—	—	—	—
Other Respiratory Diseases	—	—	—	—	—	—	—
Digestive	13	—	—	—	—	—	·38
Lymphatic	6	—	—	—	—	—	·83
Urinary	—	—	—	—	—	—	—
Generative (except Soft Chancre)	2	—	—	—	—	—	·11
Organs of Locomotion	—	—	—	—	—	—	—
Connective Tissue	3	—	—	—	—	—	·13
Skin	7	—	—	—	—	—	·36
INJURIES.							
General	—	—	—	—	—	—	—
Local	13	—	—	—	—	—	·24
In Action	—	—	—	—	—	—	—
No appreciable disease	2	—	—	—	—	—	·04
Poisons	—	—	—	—	—	—	—
Suicides	—	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	239	1	—	1	14	—	13·75

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the the Ratios per 1,000 of the Strength, and the Average Ratios for 9 Years.

Ratio per 1,000.					Average Ratio per 1,000 from 1897 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·8	·84	—	—	·04
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
4·3	—	—	—	·65	9·2	·84	1·67	—	·61
—	—	—	—	—	—	—	—	—	—
474·1	4·31	34·48	—	21·90	1231·0	10·04	62·76	1·67	37·25
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	} ·8	—	·84	·84	·09
—	—	—	—	—					
73·3		8·62	—	8·92	77·8	—	4·18	·84	6·94
103·4	—	—	—	6·72	73·6	—	·84	—	5·98
73·3	—	—	—	6·81	34·3	—	—	—	2·28
	—								
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	} 6·7	—	—	—	·19
8·6	—	—	—	·69					
—	—	—	—	—	—	—	—	—	—
4·3	—	4·31	—	·22	13·1	·84	·84	—	·49
—	—	—	—	—	} 15·9	—	·84	—	1·07
12·9	—	4·31	—	·91					
17·2	—	—	—	·60	46·0	—	11·71	1·67	1·56
—	—	—	—	—	5·9	·84	—	·84	·22
17·2	—	8·62	—	1·42	14·2	·84	4·18	1·67	·56
—	—	—	—	—	1·7	·84	·84	·84	·15
4·3	—	—	—	·09	14·2	—	—	—	·54
25·9	—	—	—	1·63	3·4	—	—	—	·08
—	—	—	—	—	} 14·2	1·67	3·35	3·35	·77
4·3	—	—	—	·17					
—	—	—	—	—					
8·6	—	—	—	·09					
—	—	—	—	—	} 10·1	—	·84	—	·33
—	—	—	—	—					
—	—	—	—	—					
56·0	—	—	—	1·64	84·5	1·67	4·18	·84	3·41
25·9	—	—	—	3·58	36·0	—	1·67	—	3·25
—	—	—	—	—	3·4	—	—	—	·12
8·6	—	—	—	·47	23·4	—	2·51	—	1·61
—	—	—	—	—	9·2	—	1·67	—	·54
12·9	—	—	—	·56	20·1	—	—	—	·66
30·2	—	—	—	1·55	25·9	—	·84	—	1·46
—	—	—	—	—	2·5	·84	—	—	·05
56·0	—	—	—	1·03	60·3	—	·84	—	2·49
—	—	—	—	—	—	—	—	—	—
8·6	—	—	—	·17	1·7	—	—	—	·03
—	—	—	—	—	·8	—	—	—	·02
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
1039·2	4·31	60·34	—	59·27	1,842·7	19·25	104·60	12·55	72·79

ABSTRACT No. VIII.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS NON-EUROPEAN TROOPS stationed at WESTERN AFRICA during the Year 1906.

Average Strength, 2,190. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent to West Indies.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	4	—	—	—	—	—	1·11
Measles	2	—	—	—	—	—	·03
Scarlet Fever	—	—	—	—	—	—	—
Other Eruptive Fevers	5	—	—	—	—	—	·31
Influenza	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—
Enteric Fever	—	—	—	—	—	—	—
Malta Fever	—	—	—	—	—	—	—
Other Continued Fevers	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—
Dysentery	3	—	—	—	—	—	·16
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	754	2	—	2	9	—	30·07
Septic Diseases	—	—	—	—	—	—	—
Tubercle of Lung	15	6	—	6	6	2	1·79
Other Tubercular Diseases	2	1	—	1	2	—	1·52
Syphilis	104	—	—	—	7	2	9·29
Gonorrhœa	192	—	—	—	—	—	13·05
Soft Chancre	148	—	—	—	—	—	13·52
Hydrophobia	—	—	—	—	—	—	—
Scabies	9	—	—	—	—	—	·37
Other Parasitic Diseases	32	1	—	1	3	—	2·90
Scurvy	—	—	—	—	—	—	—
Alcoholism	—	—	—	—	—	—	—
Rheumatic Fever	2	1	—	1	—	—	·13
Rheumatism	54	—	—	—	2	5	3·00
Debility	16	—	—	—	4	2	·98
Other General Diseases	9	—	—	—	—	—	·26
LOCAL DISEASES.							
Diseases of the—							
Nervous System (Nervous)	3	1	—	1	—	—	·23
Nervous System (Mental)	3	1	—	1	2	—	·51
Eye	33	—	—	—	1	11	1·76
Other Organs of Special Sense	7	—	—	—	—	—	·59
Valvular Disease of Heart	4	1	—	1	3	—	·48
Disordered Action of Heart	27	—	—	—	12	—	2·06
Other Circulatory Diseases	1	1	—	1	—	—	·20
Bronchitis	42	—	—	—	1	—	1·55
Pneumonia	14	2	—	2	—	—	1·05
Pleurisy	1	—	—	—	—	—	·08
Other Respiratory Diseases	4	—	—	—	1	—	·33
Digestive	82	3	—	3	13	1	3·45
Lymphatic	56	—	—	—	2	—	4·76
Urinary	4	—	—	—	2	—	·72
Generative (except Soft Chancre)	24	—	—	—	—	—	1·77
Organs of Locomotion	24	—	—	—	2	—	1·09
Connective Tissue	80	—	—	—	—	—	4·19
Skin	65	—	—	—	—	—	2·71
INJURIES.							
General	—	—	—	—	—	—	—
Local	165	—	—	—	1	—	6·89
In Action	—	—	—	—	—	—	—
No appreciable disease	3	—	—	—	—	—	·06
Poisons	1	—	—	—	—	—	·03
Suicides	—	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	1,993	20	—	20	73	23	113·00

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the with the Ratios per 1,000 of the Strength, and the Average Ratios for 10 Years.

Ratio per 1,000.					Average Ratio per 1,000 from 1896 to 1905.				
Admissions.	Deaths.	Invalids sent to West Indies.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent to West Indies.	Invalids finally Discharged.	Constantly Sick.
1·3	—	—	—	·51	·9	·06	—	—	·09
·09	—	—	—	·01	—	—	—	—	—
—	—	—	—	—	8·0	—	—	·06	·44
2·3	—	—	—	·14					
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·2	·11	—	—	·01
—	—	—	—	—	·7	—	—	·06	·05
—	—	—	—	—					
—	—	—	—	—	—	—	—	—	—
1·4	—	—	—	·07	6·5	·40	·23	·06	·36
—	—	—	—	—	—	—	—	—	—
344·3	·91	4·11	—	13·73	636·8	3·17	4·98	1·36	16·90
—	—	—	—	—	·2	·06	—	—	·01
6·8	2·74	2·74	·91	·82	6·6	3·34	3·23	2·72	1·15
·9	·46	·91	—	·69					
47·5	—	3·20	·91	4·24	67·5	·11	4·36	2·43	6·75
87·7	—	—	—	5·96	115·1	—	·51	·45	6·73
67·6	—	—	—	6·17	42·5	—	—	—	3·28
—	—	—	—	—	—	—	—	—	—
4·1	—	—	—	·17	22·5	·06	·11	·11	·79
14·6	·46	1·37	—	1·32					
—	—	—	—	—	·2	—	—	—	·02
—	—	—	—	—	·1	—	—	—	·00
·9	·46	—	—	·06	46·6	—	1·36	2·43	2·87
24·7	—	·91	2·28	1·37					
7·3	—	1·83	·91	·45	7·8	—	1·64	·79	·46
4·1	—	—	—	·12	9·2	·34	·23	·23	·41
1·4	·46	—	—	·11	4·7	·40	·68	1·06	·34
1·4	·46	·91	—	·23	1·3	—	·74	·68	·26
15·1	—	·46	5·02	·80	21·3	—	·23	·74	·95
3·2	—	—	—	·27	1·8	—	·11	·06	·08
1·8	·46	1·37	—	·22	12·3	·79	4·08	3·51	·97
12·3	—	5·48	—	·94					
·5	·46	—	—	·09					
19·2	—	·46	—	·71					
5·9	·91	—	—	·48	53·4	1·58	1·59	1·25	2·64
·5	—	—	—	·04					
1·8	—	·46	—	·15					
37·4	1·37	5·94	·46	1·53	48·9	·51	1·03	1·81	1·68
25·6	—	·91	—	2·17	36·0	·06	·34	·62	2·68
1·8	—	·91	—	·33	2·1	·57	·62	·68	·21
11·0	—	—	—	·81	23·4	·06	·96	1·13	1·73
11·0	—	·91	—	·50	15·0	—	·57	·79	·77
36·5	—	—	—	1·91	46·8	·17	—	·34	2·09
29·7	—	—	—	1·24	101·7	—	·28	·68	5·04
—	—	—	—	—	·4	·17	—	—	·03
75·2	—	·46	—	3·15	64·3	·40	·34	1·42	3·50
—	—	—	—	—	—	—	1·13	·74	—
1·4	—	—	—	·03	1·1	—	—	—	·03
·5	—	—	—	·01	·5	·11	—	—	·02
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	·06	—	—	—
910·0	9·13	33·33	10·50	51·60	1406·4	12·52	29·40	26·23	63·34

ABSTRACT No. IX.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS the TROOPS stationed at ST. HELENA, during the Year 1906, with the

Average Strength, 129. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—
Other Eruptive Fevers	—	—	—	—	—	—	—
Influenza	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—
Enteric Fever	—	—	—	—	—	—	—
Malta Fever	—	—	—	—	—	—	—
Other Continued Fevers	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—
Dysentery	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	—	—	—	—	—	—	—
Septic Diseases	—	—	—	—	—	—	—
Tubercle of Lung	—	—	—	—	—	1	—
Other Tubercular Diseases	—	—	—	—	—	—	—
Syphilis	1	—	—	—	—	—	·11
Gonorrhœa	5	—	—	—	—	—	·45
Soft Chancre	1	—	—	—	—	—	·02
Hydrophobia	—	—	—	—	—	—	—
Scabies	3	—	—	—	—	—	·16
Other Parasitic Diseases	—	—	—	—	—	—	—
Scurvy	—	—	—	—	—	—	—
Alcoholism	3	—	—	—	—	—	·06
Rheumatic Fever	—	—	—	—	—	—	—
Rheumatism	1	—	—	—	1	—	·48
Debility	1	—	—	—	1	—	·06
Other General Diseases	—	—	—	—	—	—	—
LOCAL DISEASES.							
Diseases of the—							
Nervous System { Nervous	—	—	—	—	—	—	—
Nervous System { Mental	—	—	—	—	—	—	—
Eye	—	—	—	—	—	—	—
Other Organs of Special Sense	—	—	—	—	—	—	—
Valvular Disease of Heart	—	—	—	—	—	1	—
Disordered Action of Heart	—	—	—	—	—	—	—
Other Circulatory Diseases	—	—	—	—	—	—	—
Bronchitis	1	—	—	—	—	—	·04
Pneumonia	—	—	—	—	—	—	—
Pleurisy	—	—	—	—	—	—	—
Other Respiratory Diseases	—	—	—	—	—	—	—
Digestive	5	—	—	—	—	1	·10
Lymphatic	—	—	—	—	—	—	—
Urinary	—	—	—	—	—	—	—
Generative (except Soft Chancre)	2	—	—	—	—	—	·19
Organs of Locomotion	1	—	—	—	1	—	·05
Connective Tissue	—	—	—	—	—	—	—
Skin	1	—	—	—	—	—	·01
INJURIES.							
General	—	—	—	—	—	—	—
Local	8	—	—	—	—	—	·27
In Action	—	—	—	—	—	—	—
No appreciable disease	—	—	—	—	—	—	—
Poisons	—	—	—	—	—	—	—
Suicides	—	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	33	—	—	—	3	3	2·00

into Hospital, Deaths, Numbers Invalided and Constantly Sick, among ratios per 1,000 of the Strength, and the Average Ratios for 4 Years.

Ratio per 1,000.					Average Ratio per 1,000 from 1902 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	4·2	—	—	—	·51
—	—	—	—	—					
—	—	—	—	—	40·3	—	—	—	1·72
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	16·4	2·12	3·18	·53	6·84
—	—	—	—	—	4·8	—	—	—	·19
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	14·8	—	1·06	—	1·19
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	3·2	—	—	—	·12
—	—	—	—	—	—	—	—	—	—
—	—	—	7·75	—	1·6	—	1·59	·53	·19
—	—	—	—	—					
7·7	—	—	—	·85	23·8	—	·53	·53	2·26
38·8	—	—	—	3·49	90·1	—	—	—	5·60
7·7	—	—	—	·15	5·8	—	—	—	·35
—	—	—	—	—	—	—	—	—	—
23·3	—	—	—	1·24	60·9	—	—	—	2·50
—	—	—	—	—					
—	—	—	—	—	—	—	—	—	—
23·3	—	—	—	·47	4·8	·53	—	—	·12
—	—	—	—	—	21·2	—	·53	·53	1·29
7·7	—	7·75	—	3·72					
7·7	—	7·75	—	·47	7·4	—	·53	1·06	·36
—	—	—	—	—	5·3	—	—	·53	·21
—	—	—	—	—	6·9	·53	3·18	3·18	·55
—	—	—	—	—	1·6	—	1·59	1·59	·37
—	—	—	—	—	8·5	—	·53	1·59	·31
—	—	—	—	—	7·4	—	1·06	1·06	·53
—	—	—	7·75	—	12·2	·53	2·65	2·12	·83
—	—	—	—	—					
—	—	—	—	—					
7·7	—	—	—	·31					
—	—	—	—	—	32·9	2·12	·53	—	1·44
—	—	—	—	—					
—	—	—	—	—					
38·8	—	—	7·75	·77	106·5	—	2·65	2·12	3·76
—	—	—	—	—	8·5	—	—	—	·91
—	—	—	—	—	6·4	1·06	1·59	1·06	·62
15·5	—	—	—	1·47	20·1	—	—	—	1·28
7·7	—	7·75	—	·39	14·8	—	1·06	3·18	·97
—	—	—	—	—	18·6	—	—	—	·85
7·7	—	—	—	·08	55·1	—	—	—	3·02
—	—	—	—	—	1·1	—	—	—	·08
62·0	—	—	—	2·09	75·8	—	1·59	·53	3·02
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	3·7	—	—	—	·11
—	—	—	—	—	—	—	—	—	·01
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
255·8	—	23·26	23·26	15·50	684·7	6·39	23·85	20·14	42·71

ABSTRACT No. X.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS the TROOPS stationed at SOUTH AFRICA, during the year 1906, with the ratios

Average Strength, 18,000. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	—	—	—	—	—	—	—
Measles	1	—	—	—	—	—	·04
Scarlet Fever	9	—	—	—	—	—	1·46
Other Eruptive Fevers	1	—	—	—	—	—	·06
Plague	—	—	—	—	—	—	—
Influenza	114	—	—	—	1	—	5·75
Diphtheria	1	—	—	—	—	—	·01
Enteric Fever	168	18	—	18	8	—	32·96
Malta Fever	1	—	—	—	4	1	·37
Other Continued Fevers	14	2	—	2	—	—	1·03
Cholera	—	—	—	—	—	—	—
Dysentery	82	—	—	—	3	—	6·68
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	216	—	—	—	3	—	9·11
Septic Diseases	22	—	—	—	—	—	2·16
Tubercle of Lung	23	3	—	3	26	30	8·38
Other Tubercular Diseases	6	—	—	—	2	2	1·39
Syphilis	367	1	—	1	10	2	37·24
Gonorrhœa	497	—	—	—	2	1	41·14
Soft Chancre	289	—	—	—	—	—	29·58
Hydrophobia	—	—	—	—	—	—	—
Scabies	126	—	—	—	—	—	5·14
Other Parasitic Diseases	67	—	—	—	10	1	3·97
Scurvy	—	—	—	—	—	—	—
Alcoholism	21	1	—	1	—	—	1·01
Rheumatic Fever	50	—	—	—	6	2	6·52
Rheumatism	229	—	—	—	11	2	16·41
Debility	85	—	—	—	11	1	6·12
Other General Diseases	43	2	—	2	2	1	3·56
LOCAL DISEASES.							
Diseases of the—							
Nervous System { Nervous	79	2	—	2	11	4	6·97
Nervous System { Mental	12	—	—	—	8	16	3·39
Eye	121	—	—	—	8	4	9·57
Other Organs of Special Sense	122	1	—	1	9	6	8·86
Valvular Disease of Heart	30	2	1	3	16	14	4·83
Disordered Action of Heart	66	—	—	—	11	4	7·36
Other Circulatory Diseases	36	4	—	4	4	2	3·64
Bronchitis	311	—	—	—	1	—	12·82
Pneumonia	88	12	—	12	3	1	8·07
Pleurisy	17	—	—	—	—	—	1·47
Other Respiratory Diseases	28	—	—	—	1	1	1·73
Digestive	1,779	7	—	7	32	14	75·20
Lymphatic	59	—	1	1	5	1	6·42
Urinary	22	1	—	1	5	2	2·69
Generative (except Soft Chancre)	128	—	—	—	—	—	6·30
Organs of Locomotion	255	—	—	—	9	4	16·41
Connective Tissue	356	—	—	—	2	1	16·82
Skin	405	—	—	—	1	—	22·59
INJURIES.							
General	46	7	—	7	—	—	1·59
Local	1,147	12	—	12	17	16	60·06
In Action	—	—	—	—	—	—	—
No appreciable disease	56	—	—	—	—	—	1·34
Poisons	5	—	—	—	—	—	·12
Suicides	—	(3)	—	(3)	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	7,600	75	2	77	242	133*	498·34

* Includes 2 invalids discharged in the Command.

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among per 1,000 of the Strength, and the Average Ratios for 4 Years.

Ratio per 1,000.					Average Ratio per 1,000 from 1902 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	·0	—	—	—	·01
·1	—	—	—	·00	} 3·8	·05	—	—	·35
·5	—	—	—	·08					
·1	—	—	—	·00					
—	—	—	—	—	—	·01	—	—	—
6·3	—	·06	—	·32	21·0	·21	·06	·01	1·14
·1	—	—	—	·00	·1	·02	—	—	·02
9·3	1·00	·44	—	1·83	26·4	3·02	4·90	·50	5·19
·1	—	·22	·06	·02	} 6·9	·01	·09	—	·52
·8	·11	—	—	·06					
—	—	—	—	—	—	—	—	—	—
4·6	—	·17	—	·37	15·2	·37	·96	·02	1·24
—	—	—	—	—	—	—	—	—	—
12·0	—	·17	—	·51	21·1	·04	1·50	·05	1·44
1·2	—	—	—	·12	2·1	·08	·02	·02	·18
1·3	·17	1·44	1·67	·47	} 2·0	·20	1·02	·81	·61
·3	—	·11	·11	·08					
20·4	·06	·56	·11	2·07	19·5	·04	1·00	·31	2·30
27·6	—	·11	·06	2·29	26·1	—	·18	·05	2·02
16·1	—	—	—	1·64	10·6	—	—	—	·77
—	—	—	—	—	—	—	—	—	—
7·0	—	—	—	·29	} 9·6	—	·81	·54	·52
3·7	—	·56	·06	·22					
—	—	—	—	—	·1	—	—	—	·00
1·2	·06	—	—	·06	2·7	·12	·02	·01	·14
2·8	—	·33	·11	·36	} 17·8	·04	1·40	·34	1·63
12·7	—	·61	·11	·91					
4·7	—	·61	·06	·34	12·0	—	1·63	·23	·85
2·4	·11	·11	·06	·20	3·1	·09	·13	·04	·20
4·4	·11	·61	·22	·39	7·5	·19	1·24	·72	·64
·7	—	·44	·89	·19	1·5	·03	1·54	1·12	·26
6·7	—	·44	·22	·53	11·1	—	1·03	·59	·78
6·8	·06	·50	·33	·49	10·5	—	1·39	·91	·81
1·7	·17	·89	·78	·27	} 11·7	·31	3·38	1·93	1·19
3·7	—	·61	·22	·41					
2·0	·22	·22	·11	·20					
17·3	—	·06	—	·71	} 27·4	1·33	1·01	·23	1·85
4·9	·67	·17	·06	·45					
·9	—	—	—	·08					
1·6	—	·06	·06	·10					
96·8	·39	1·78	·78	4·18	130·4	·45	5·38	1·05	5·80
3·3	·06	·28	·06	·36	3·9	·01	·17	·07	·30
1·2	·06	·28	·11	·15	2·4	·06	·46	·21	·22
7·1	—	—	—	·35	8·1	·01	·40	·05	·58
14·2	—	·50	·22	·91	14·7	—	·81	·39	1·02
19·8	—	·11	·06	·53	19·5	—	·13	·01	·94
22·5	—	·06	—	1·26	30·7	—	·21	·06	1·56
2·6	·39	—	—	·09	1·6	·43	·02	·02	·07
63·7	·67	·94	·89	3·34	72·9	·67	2·02	·66	4·00
—	—	—	—	—	·0	—	·01	·11	·00
3·1	—	—	—	·07	3·9	—	—	—	·16
·3	—	—	—	·01	·4	·07	—	·16	·02
—	(·17)	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
422·2	4·28	13·44	7·39	27·69	558·6	7·85	32·92	11·21	39·35

ABSTRACT No. XA.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in CAPE COLONY during the year 1906, with the ratios per 1,000 of the Strength, and the Average Ratios for 4 years.

Average Strength, 3,816. Diseases.	Admissions into Hospital.	Deaths in the Command.	Invalids sent Home.	Average Number constantly Sick.	Ratio per 1,000. Admissions.	Deaths.	Invalids sent Home.	Constantly Sick.	Average Ratio per 1,000 from 1902 to 1905. Admissions.	Deaths.	Invalids sent Home.	Constantly Sick.
GENERAL DISEASES.												
Small-pox	—	—	—	—	—	—	—	—	·1	—	—	·03
Measles	—	—	—	—	—	—	—	—				
Scarlet Fever	2	—	—	·27	·5	—	—	·07	4·6	·10	—	·20
Other Eruptive Fevers	1	—	—	·06	·3	—	—	·02				
Influenza	30	—	—	1·85	7·9	—	—	·48	23·7	—	·24	1·23
Diphtheria	1	—	—	·01	·3	—	—	·00	·5	·10	—	·05
Enteric Fever	14	3	—	2·17	3·7	·79	—	·57	20·8	2·77	4·02	4·85
Malta Fever	—	—	—	·06	—	—	—	·02	4·4	—	·10	·40
Other Continued Fevers	3	1	—	·37	·8	·26	—	·10				
Cholera	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	8	—	1	·86	2·1	—	·26	·23	12·3	·29	·81	1·08
Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—
Malarial Fevers	100	—	1	2·83	26·2	—	·26	·75	12·6	—	·91	·68
Septic Diseases	2	—	—	·21	·5	—	—	·06	3·6	·05	·05	·30
Tubercle of Lung	3	1	4	1·62	·8	·26	1·05	·42	3·3	·14	1·96	·94
Other Tubercular Diseases	1	—	—	·26	·3	—	—	·07				
Syphilis	116	—	6	12·54	30·4	—	1·57	3·29	39·1	—	1·39	4·92
Gonorrhœa	214	—	2	15·23	56·1	—	·52	3·99	58·5	—	·43	4·62
Soft Chancre	133	—	—	15·03	34·8	—	—	3·94	29·9	—	·05	2·65
Hydrophobia	—	—	—	—	—	—	—	—	—	—	—	—
Scabies	32	—	—	1·14	8·4	—	—	·30	14·6	—	·53	·88
Other Parasitic Diseases	12	—	—	·26	3·1	—	—	·07				
Scurvy	—	—	—	—	—	—	—	—	—	—	—	—
Alcoholism	4	—	—	·24	1·0	—	—	·06	4·1	·19	·14	·21
Rheumatic Fever	2	—	—	·10	·5	—	—	·03	21·0	·10	1·87	2·36
Rheumatism	44	—	2	3·83	11·5	—	·52	1·00				
Debility	10	—	1	·31	2·6	—	·26	·68	14·2	—	2·01	1·09
Other General Diseases	8	1	—	·44	2·1	·26	—	·12	4·3	·14	·19	·43
LOCAL DISEASES.												
Diseases of the—												
Nervous System—Nervous	10	—	1	·95	2·6	—	·26	·25	10·4	·29	1·91	·97
Nervous System—Mental	1	—	—	·26	·3	—	—	·07	3·4	—	4·83	·51
Eye	22	—	4	2·03	5·8	—	1·05	·53	13·3	—	1·63	1·24
Other Organs of Special Sense	18	1	4	2·30	4·7	·26	1·05	·60	17·8	—	2·97	1·46
Valvular Disease of Heart	6	1	2	1·41	1·6	·26	·52	·37	13·6	·19	4·35	1·38
Disordered Action of Heart	13	—	2	2·78	3·4	—	·52	·73				
Other Circulatory Diseases	9	1	—	·98	2·4	·26	—	·26				
Bronchitis	31	—	—	2·43	8·1	—	—	·64	35·5	1·82	1·58	2·71
Pneumonia	14	2	—	1·32	3·7	·52	—	·35				
Pleurisy	2	—	—	·14	·5	—	—	·04				
Other Respiratory Diseases	2	—	—	·15	·5	—	—	·04				
Digestive	241	2	5	11·82	63·2	·52	1·31	3·10	170·2	·57	10·28	8·11
Lymphatic	15	—	2	3·30	3·9	—	·52	·86	5·5	—	·43	·53
Urinary	1	—	1	·37	·3	—	·26	·10	3·6	·19	·62	·80
Generative (except Soft Chancre)	40	—	—	1·64	10·5	—	—	·43	12·8	—	·38	·98
Organs of Locomotion	47	—	1	2·01	12·3	—	·26	·53	17·5	—	·72	1·54
Connective Tissue	70	—	—	2·43	18·3	—	—	·64	25·1	—	·19	1·51
Skin	73	—	—	3·92	19·1	—	—	1·03	34·5	—	·33	1·98
INJURIES.												
General	—	2	—	—	—	·52	—	—	3·5	·53	·10	·13
Local	285	3	2	11·88	74·7	·79	·52	3·11	63·1	·72	2·20	5·02
In Action	—	—	—	—	—	—	—	—	—	—	—	—
No appreciable disease	17	—	—	·38	4·5	—	—	·10	4·8	—	—	·18
Poisons	—	—	—	—	—	—	—	—	·3	·10	—	·02
Suicides	—	(2)	—	—	—	(·52)	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—	—	—	—	—	—
General Total	1,657	18	41	112·24	434·2	4·72	10·74	29·41	726·8	8·23	47·21	56·61

ABSTRACT No. XB. — TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK, among the TROOPS stationed in the TRANSVAAL during the year 1906, with the ratios per 1,000 of the Strength, and the average ratios for 3 years.

Average Strength, 8,410. Diseases.	Admissions into Hospital.	Deaths in the Command.	Invalids sent Home.	Average Number constantly Sick.	Ratio per 1,000. Admissions.	Deaths.	Invalids sent Home.	Constantly Sick.	Average Ratio per 1,000 from 1903 to 1905. Admissions.	Deaths.	Invalids sent Home.	Constantly Sick.
GENERAL DISEASES.												
Small-pox	—	—	—	—	—	—	—	—	·0	—	—	·00
Measles	1	—	—	·04	·1	—	—	·00	1·3	—	1·15	·15
Scarlet Fever	3	—	—	·47	·4	—	—	·06				
Other Eruptive Fevers	—	—	—	—	—	—	—	—				
Influenza	42	—	—	1·88	5·0	—	—	·22	34·1	·61	—	1·57
Diphtheria	—	—	—	—	—	—	—	—	·1	—	—	·02
Enteric Fever	123	12	3	23·84	14·6	1·43	·36	2·83	35·1	3·68	1·99	7·32
Malta Fever	1	—	1	·26	·1	—	·12	·03	7·9	—	·10	·49
Other Continued Fevers	—	—	—	—	—	—	—	—				
Cholera	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	52	—	—	3·37	6·2	—	—	·40	14·7	·57	·61	1·41
Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—
Malarial Fevers	87	—	2	4·98	10·3	—	·24	·59	18·3	·10	·34	1·71
Septic Diseases	11	—	—	·71	1·3	—	—	·08	2·8	·10	—	·24
Tubercle of Lung	5	1	7	2·91	·6	·12	·83	·35	1·5	·27	·98	·47
Other Tubercular Diseases	4	—	1	1·09	·5	—	·12	·13				
Syphilis	107	1	—	9·63	12·7	·12	—	1·15	18·3	·10	·68	2·36
Gonorrhœa	124	—	—	11·12	14·7	—	—	1·32	15·2	—	—	1·38
Soft Chancre	56	—	—	5·33	6·7	—	—	·64	4·8	—	—	·41
Hydrophobia	—	—	—	—	—	—	—	—	—	—	—	—
Scabies	51	—	—	1·77	6·1	—	—	·21	11·0	—	1·65	·63
Other Parasitic Diseases	32	—	10	2·36	3·8	—	1·19	·28				
Scurvy	—	—	—	—	—	—	—	—	·1	—	—	·01
Alcoholism	10	1	—	·51	1·2	·12	—	·06	2·8	·10	·03	14
Rheumatic Fever	34	—	3	3·74	4·0	—	·36	·44	19·4	·03	·61	1·84
Rheumatism	91	—	5	5·69	10·8	—	·59	·68				
Debility	27	—	3	1·85	3·2	—	·36	·22	15·0	—	1·08	1·06
Other General Diseases	21	1	1	1·75	2·5	·12	·12	·21	3·1	·03	·10	·17
LOCAL DISEASES.												
Diseases of the—												
Nervous System: Nervous	30	1	8	4·03	3·6	·12	·95	·48	7·1	·30	1·08	·49
Nervous System: Mental	6	—	7	2·35	·7	—	·83	·28	·8	—	·68	·15
Eye	55	—	2	4·04	6·5	—	·24	·48	13·6	—	1·11	·96
Other Organs of Special Sense	47	—	—	2·60	5·6	—	—	·31	11·1	—	·81	·72
Valvular Disease of Heart	13	1	8	2·72	1·5	·12	·95	·32	10·2	·34	2·90	1·21
Disordered Action of Heart	23	—	2	1·50	2·7	—	·24	·18				
Other Circulatory Diseases	10	1	3	·87	1·2	·12	·36	·10				
Bronchitis	194	—	1	6·52	23·1	—	·12	·78	—	—	—	—
Pneumonia	50	9	—	4·15	5·9	1·07	—	·49	31·1	1·28	·37	2·00
Pleurisy	7	—	—	·70	·8	—	—	·08				
Other Respiratory Diseases	12	—	—	·87	1·4	—	—	·10				
Digestive	805	3	17	28·20	95·7	·36	2·02	3·35	136·9	·34	1·65	6·10
Lymphatic	29	—	2	2·15	3·4	—	·24	·26	3·3	·03	·03	·25
Urinary	7	1	1	·77	·8	·12	·12	·09	2·0	·03	·41	·24
Generative (except Soft Chancre)	43	—	—	2·02	5·1	—	—	·24	7·4	—	·03	·52
Organs of Locomotion	102	—	2	6·58	12·1	—	·24	·78	17·7	—	·68	1·18
Connective Tissue	161	—	—	8·02	19·1	—	—	·95	22·0	—	·03	1·04
Skin	190	—	—	8·26	22·6	—	—	·98	38·8	—	·27	1·88
INJURIES.												
General	44	4	—	1·44	5·2	·48	—	·17	1·2	·34	—	·06
Local	474	5	8	25·85	56·4	·59	·95	3·07	92·7	·64	1·59	5·12
In Action	—	—	—	—	—	—	—	—	—	—	—	—
No appreciable disease	28	—	—	·78	3·3	—	—	·09	4·5	—	—	·13
Poisons	3	—	—	·06	·4	—	—	·01	·4	·03	—	·02
Suicides	—	—	—	—	—	—	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—	—	—	—	—	—
General Total	3,215	41	97	197·78	382·3	4·88	11·53	23·52	606·5	8·95	20·96	43·48

ABSTRACT No. XC.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK, among the TROOPS stationed in the ORANGE RIVER COLONY, during the year 1906, with the Ratios per 1,000 of the Strength, and the average Ratios for 3 years.

Average Strength, 5,774. Diseases.	Admissions into Hospital.	Deaths in the Command.	Invalids sent Home.	Average Number constantly Sick.	Ratio per 1,000. Admissions.	Deaths.	Invalids sent Home.	Constantly Sick.	Average Ratio per 1,000 from 1903 to 1905. Admissions.	Deaths.	Invalids sent Home.	Constantly Sick.
GENERAL DISEASES.												
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	4	—	—	·72	·7	—	—	·12	3·3	·06	—	·41
Other Eruptive Fevers	—	—	—	—	—	—	—	—				
Influenza	42	—	1	2·02	7·3	—	·17	·35	27·8	·40	—	1·89
Diphtheria	—	—	—	—	—	—	—	—	·1	—	—	·01
Enteric Fever	31	3	5	6·95	5·4	·52	·87	1·20	41·2	4·18	4·01	7·09
Malta Fever	—	—	—	—	—	—	—	—	6·1	—	·06	·62
Other Continued Fevers	11	1	3	·71	1·9	·17	·52	·12				
Cholera	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	22	—	2	2·45	3·8	—	·35	·42	16·9	·17	·74	1·18
Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—
Malarial Fevers	29	—	—	1·25	5·0	—	—	·22	4·5	—	·11	·26
Septic Diseases	9	—	—	1·24	1·6	—	—	·21	2·4	·06	·06	·24
Tubercle of Lung	15	1	15	3·85	2·6	·17	2·60	·67	2·4	·23	1·58	1·42
Other Tubercular Diseases	1	—	1	·04	·2	—	·17	·01				
Syphilis	144	—	4	15·07	24·9	—	·69	2·61	22·3	—	·45	2·20
Gonorrhœa	159	—	—	14·79	27·5	—	—	2·56	27·1	—	·17	1·92
Soft Chancre	100	—	—	9·22	17·3	—	—	1·60	7·9	—	—	·42
Hydrophobia	—	—	—	—	—	—	—	—	—	—	—	—
Scabies	43	—	—	2·23	7·4	—	—	·39	10·9	—	·28	·46
Other Parasitic Diseases	23	—	—	1·35	4·0	—	—	·23				
Scurvy	—	—	—	—	—	—	—	—	—	—	—	—
Alcoholism	7	—	—	·26	1·2	—	—	·05	2·8	·06	—	·14
Rheumatic Fever	14	—	3	2·68	2·4	—	·52	·46	24·2	—	1·07	1·97
Rheumatism	94	—	4	6·89	16·3	—	·69	1·19				
Debility	48	—	7	3·96	8·3	—	1·21	·69	10·8	—	·90	·71
Other General Diseases	14	—	1	1·37	2·4	—	·17	·24	4·2	·11	·17	·22
LOCAL DISEASES.												
Diseases of the—												
Nervous System (Nervous)	39	1	2	1·99	6·8	·17	·35	·34	7·7	·11	1·19	·53
Nervous System (Mental)	5	—	1	·78	·9	—	·17	·14	1·1	·06	1·07	·14
Eye	44	—	2	3·50	7·6	—	·35	·61	12·1	—	·51	·67
Other Organs of Special Sense	57	—	5	3·96	9·9	—	·87	·69	9·8	—	1·24	·77
Valvular Disease of Heart	11	—	6	·70	1·9	—	1·04	·12				
Disordered Action of Heart	30	—	7	3·08	5·2	—	1·21	·53	12·7	·34	3·56	1·23
Other Circulatory Diseases	17	2	1	1·79	2·9	·35	·17	·31				
Bronchitis	86	—	—	3·87	14·9	—	—	·67				
Pneumonia	24	1	3	2·60	4·2	·17	·52	·45	29·6	·96	·62	2·07
Pleurisy	8	—	—	·63	1·4	—	—	·11				
Other Respiratory Diseases	14	—	1	·71	2·4	—	·17	·12				
Digestive	733	2	10	35·18	126·9	·35	1·73	6·09	173·7	·51	1·19	6·25
Lymphatic	15	—	1	·97	2·6	—	·17	·17	3·1	—	·06	·19
Urinary	14	—	3	1·55	2·4	—	·52	·27	2·7	—	·34	·25
Generative (except Soft Chancre)	45	—	—	2·64	7·8	—	—	·46	8·4	—	·11	·60
Organs of Locomotion	106	—	6	7·82	18·4	—	1·04	1·35	17·5	—	·57	1·07
Connective Tissue	125	—	2	6·37	21·6	—	·35	1·10	22·9	—	—	1·06
Skin	142	—	1	10·41	24·6	—	·17	1·80	41·5	—	—	1·93
INJURIES.												
General	2	1	—	·15	·3	·17	—	·03	1·8	·57	—	·08
Local	388	4	7	22·33	67·2	·69	1·21	3·87	96·0	·90	1·30	4·55
In Action	—	—	—	—	—	—	—	—	·1	—	·06	·00
No appreciable disease	11	—	—	·18	1·9	—	—	·03	4·4	—	—	·31
Poisons	2	—	—	·06	·3	—	—	·01	·7	—	—	·02
Suicides	—	(1)	—	—	—	(·17)	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—	—	—	—	—	—
General Total	2,728	18	104	188·32	472·5	2·77	18·01	32·62	660·6	8·71	21·43	42·94

ABSTRACT No. XI.

ABSTRACT No. XI.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS the TROOPS stationed at MAURITIUS during the year 1906, with the Ratios

Average Strength, 1,193. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—
Other Eruptive Fevers	—	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—
Influenza	12	—	—	—	—	—	·40
Diphtheria	—	—	—	—	—	—	—
Enteric Fever	9	1	—	1	1	—	1·87
Malta Fever	—	—	—	—	—	—	—
Other Continued Fevers	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—
Dysentery	7	—	—	—	—	—	·48
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	164	1	—	1	15	—	7·49
Septic Diseases	—	—	—	—	—	—	—
Tubercle of Lung	1	—	—	—	—	1	·14
Other Tubercular Diseases	2	1	—	1	—	—	·03
Syphilis	59	—	—	—	1	—	4·23
Gonorrhœa	207	—	—	—	1	—	16·37
Soft Chancre	61	—	—	—	—	—	4·21
Hydrophobia	—	—	—	—	—	—	—
Scabies	10	—	—	—	—	—	·39
Other Parasitic Diseases	4	—	—	—	2	1	·48
Scurvy	—	—	—	—	—	—	—
Alcoholism	1	—	—	—	—	—	·02
Rheumatic Fever	—	—	—	—	—	—	—
Rheumatism	6	—	—	—	1	—	·52
Debility	16	—	—	—	3	—	1·05
Other General Diseases	4	1	1	2	1	—	·52
LOCAL DISEASES.							
Diseases of the—							
Nervous System (Nervous)	—	—	—	—	—	—	—
Nervous System (Mental)	2	1	—	1	1	3	·50
Eye	2	—	—	—	—	—	·13
Other Organs of Special Sense	3	—	—	—	—	—	·05
Valvular Disease of Heart	3	—	—	—	3	3	·17
Disordered Action of Heart	1	—	—	—	—	—	·01
Other Circulatory Diseases	1	—	—	—	—	—	·05
Bronchitis	5	—	—	—	—	—	·43
Pneumonia	—	—	—	—	—	—	—
Pleurisy	—	—	—	—	—	—	—
Other Respiratory Diseases	1	—	—	—	—	1	·06
Digestive	62	3	—	3	8	—	4·74
Lymphatic	26	—	—	—	—	—	2·64
Urinary	6	—	—	—	2	—	·60
Generative (except Soft Chancre)	31	—	—	—	—	—	1·55
Organs of Locomotion	29	—	—	—	3	—	2·69
Connective Tissue	12	—	—	—	—	—	·62
Skin	9	—	—	—	—	—	·54
INJURIES.							
General	—	—	—	—	—	—	—
Local	41	—	—	—	—	—	2·32
In Action	—	—	—	—	—	—	—
No appreciable disease	4	—	—	—	—	—	·12
Poisons	—	—	—	—	—	—	—
Suicides	—	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	801	8	1	9	42	9	54·82

INTO HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK, among per 1,000 of the Strength, and the Average Ratios for 10 years.

Ratio per 1,000.					Average Ratio per 1,000 from 1896 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—					
—	—	—	—	—	21·4	—	—	—	1·34
—	—	—	—	—					
—	—	—	—	—	·3	·13	—	—	·02
10·1	—	—	—	·34	3·7	—	—	—	·15
—	—	—	—	—	—	—	—	—	—
7·5	·84	·84	—	1·57	17·0	5·09	1·14	·13	3·09
—	—	—	—	—	·8	—	—	—	·12
—	—	—	—	—					
—	—	—	—	—	—	—	—	—	—
5·9	—	—	—	·40	6·2	·25	·13	—	·57
—	—	—	—	—	—	—	—	—	—
137·5	·84	12·57	—	6·28	334·6	1·53	20·60	·25	17·01
—	—	—	—	—	·3	·25	—	—	·01
·8	—	—	·84	·12	1·1	·25	·89	·64	·15
1·7	·84	—	—	·03					
49·5	—	·84	—	3·55	86·6	·25	2·29	·25	11·06
173·5	—	·84	—	13·72	118·4	—	·51	—	8·63
51·1	—	—	—	3·53	42·1	—	—	—	3·95
—	—	—	—	—	—	—	—	—	—
8·4	—	—	—	·33	12·7	—	·25	·13	·45
3·4	—	1·68	·84	·40					
—	—	—	—	—	—	—	—	—	—
·8	—	—	—	·02	3·2	—	—	—	·18
—	—	—	—	—	10·6	—	1·14	·38	·80
5·0	—	·84	—	·44					
13·4	—	2·51	—	·88	14·1	—	2·29	·89	·95
3·4	1·68	·84	—	·44	7·0	·13	·13	·13	·43
—	—	—	—	—	6·0	·51	1·02	·59	·43
1·7	·84	·84	2·51	·42	1·3	·13	·89	1·02	·17
1·7	—	—	—	·11	5·3	—	·25	—	·41
2·5	—	—	—	·04	10·4	—	·38	—	·58
2·5	—	2·51	2·51	·14					
·8	—	—	—	·01	5·3	·64	2·16	1·53	·47
·8	—	—	—	·04					
4·2	—	—	—	·36	—	—	—	—	—
—	—	—	—	—					
—	—	—	—	—	18·4	—	·51	—	·91
·8	—	—	·84	·05					
52·0	2·51	6·71	—	3·97	72·2	1·53	1·27	—	3·13
21·8	—	—	—	2·21	15·9	—	·51	—	2·70
5·0	—	1·68	—	·50	2·0	·25	·38	·25	·13
26·0	—	—	—	1·30	12·1	—	·13	—	·55
24·3	—	2·51	—	1·75	9·9	—	·51	·25	·55
10·1	—	—	—	·52	19·8	—	—	—	·91
7·5	—	—	—	·45	27·7	—	·13	—	1·52
—	—	—	—	—	·8	·38	—	·13	·03
34·4	—	—	—	1·94	99·4	—	1·02	·13	4·45
—	—	—	—	—	—	—	—	—	—
3·4	—	—	—	·10	3·7	—	—	—	·13
—	—	—	—	—	·4	—	—	—	·01
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
671·4	7·54	35·21	7·54	45·95	980·7	11·32	38·53	6·99	66·00

ABSTRACT No. XII.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS the TROOPS stationed at CEYLON during the Year 1906, with the ratios

Average Strength, 1,125. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—
Other Eruptive Fevers	54	—	—	—	—	—	1·52
Influenza	2	—	—	—	—	—	·05
Diphtheria	—	—	—	—	—	—	—
Enteric Fever	9	5	—	5	—	—	1·66
Malta Fever	—	—	—	—	—	—	—
Other Continued Fevers	19	—	—	—	—	—	·80
Cholera	—	—	—	—	—	—	—
Dysentery	19	1	1	2	1	—	1·49
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	19	—	—	—	1	—	·99
Septic Diseases	—	—	—	—	—	—	—
Tubercle of Lung	2	—	—	—	3	3	·30
Other Tubercular Diseases		—	—	—	1	—	·13
Syphilis	20	—	—	—	1	—	2·54
Gonorrhœa	75	—	—	—	—	—	5·20
Soft Chancre	47	—	—	—	—	—	4·78
Hydrophobia	—	—	—	—	—	—	—
Scabies	5	—	—	—	—	—	·22
Other Parasitic Diseases	9	—	—	—	1	—	·40
Scurvy	—	—	—	—	—	—	—
Alcoholism	4	—	—	—	—	—	·07
Rheumatic Fever	1	—	—	—	1	1	·15
Rheumatism	14	1	—	1	—	—	1·01
Debility	6	—	—	—	2	—	·63
Other General Diseases	5	—	—	—	—	—	·35
LOCAL DISEASES.							
Diseases of the—							
Nervous System (Nervous)	4	1	—	1	1	—	·23
Nervous System (Mental)	—	—	—	—	3	3	·03
Eye	11	—	—	—	—	—	·73
Other Organs of Special Sense	19	1	—	1	—	—	·87
Valvular Disease of Heart	1	—	—	—	1	1	·07
Disordered Action of Heart	1	—	—	—	—	—	·09
Other Circulatory Diseases	2	—	—	—	—	—	·25
Bronchitis	10	—	—	—	—	—	·26
Pneumonia	—	—	—	—	—	—	·05
Pleurisy	—	—	—	—	—	—	—
Other Respiratory Diseases	2	—	—	—	—	—	·30
Digestive	83	1	—	1	2	—	4·63
Lymphatic	28	—	—	—	—	—	2·97
Urinary	1	—	—	—	—	—	·02
Generative (except Soft Chancre)	19	—	—	—	—	—	·74
Organs of Locomotion	10	—	—	—	—	—	·37
Connective Tissue	28	—	—	—	—	—	1·43
Skin	47	—	—	—	—	—	2·19
INJURIES.							
General	—	—	—	—	—	—	—
Local	111	1	—	1	—	—	5·19
In Action	—	—	—	—	—	—	—
No appreciable disease	2	—	—	—	—	—	·13
Poisons	—	—	—	—	—	—	—
Suicides	—	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	690	11	1	12	18	8	42·84

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK, among per 1,000 of the Strength, and the Average Ratios for 10 years.

Ratio per 1,000.					Average Ratio per 1,000 from 1896 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	1·3	—	—	—	·04
—	—	—	—	—					
48·0	—	—	—	1·35					
1·8	—	—	—	·04	4·7	—	—	—	·12
—	—	—	—	—	—	—	—	—	—
8·0	4·44	—	—	1·48	5·4	1·63	·27	—	·65
—	—	—	—	—	26·5	·07	·14	—	·98
16·9	—	—	—	·71					
—	—	—	—	—	—	—	—	—	—
16·9	1·78	·89	—	1·32	12·0	·68	·48	—	·76
—	—	—	—	—	—	—	—	—	—
16·9	—	·89	—	·88	119·6	·61	1·29	·14	3·61
—	—	—	—	—	·1	·07	—	—	·01
1·8	—	2·67	2·67	·27	2·2	·41	1·56	·88	·32
·9	—	·89	—	·12					
17·8	—	·89	—	2·26	70·7	·07	1·84	·54	5·96
66·7	—	—	—	4·62	110·3	—	·20	—	7·73
41·8	—	—	—	4·25	34·7	—	—	—	2·64
—	—	—	—	—	—	—	—	—	—
4·4	—	—	—	·20	19·4	—	—	—	·54
8·0	—	·89	—	·36					
—	—	—	—	—	·1	—	—	—	·00
3·6	—	—	—	·06	4·1	—	—	—	·11
·9	—	·89	·89	·13	16·3	·07	1·43	·34	1·12
12·4	·89	—	—	·90					
5·3	—	1·78	—	·56	21·2	·07	3·47	·68	1·23
4·4	—	—	—	·31	5·9	·07	·41	·07	·32
3·6	·89	·89	—	·20	6·0	·47	·68	·41	·34
—	—	2·67	2·67	·03	1·5	·07	·54	·75	·22
9·8	—	—	—	·65	9·4	—	·54	·34	·42
16·9	·89	—	—	·77	14·7	—	·54	·34	·47
·9	—	·89	·89	·06	9·6	1·36	2·52	1·43	·83
·9	—	—	—	·08					
1·8	—	—	—	·22					
8·9	—	—	—	·23					
—	—	—	—	·04	15·4	·41	·20	·07	·75
—	—	—	—	—					
1·8	—	—	—	·27					
73·8	·89	1·78	—	4·12	78·5	1·97	2·11	·48	3·05
24·9	—	—	—	2·64	40·3	—	·20	—	4·50
·9	—	—	—	·02	2·1	·13	·07	·07	·09
16·9	—	—	—	·66	26·7	—	·34	—	1·64
8·9	—	—	—	·33	13·5	—	·68	·34	·80
24·9	—	—	—	1·27	32·1	—	—	—	1·25
41·8	—	—	—	1·95	68·8	—	·14	·14	2·56
—	—	—	—	—	2·6	1·16	·14	—	·12
98·7	·89	—	—	4·61	67·1	·95	·54	·34	2·51
—	—	—	—	—	—	—	—	—	—
1·8	—	—	—	·12	3·4	—	—	—	·10
—	—	—	—	—	·5	—	—	—	·03
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
613·3	10·67	16·00	7 11	38·08	846·7	10·27	20·34	7·35	45·62

ABSTRACT No. XIII.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS the TROOPS stationed at SOUTH CHINA during the year 1906, with the Ratios

Average Strength, 1,525. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	—	—	—	—	—	—	—
Measles	1	—	—	—	—	—	·05
Scarlet Fever	—	—	—	—	—	—	—
Other Eruptive Fevers	2	—	—	—	—	—	·03
Plague	1	1	—	1	—	—	·01
Influenza	49	—	—	—	—	—	1·60
Diphtheria	1	1	—	1	—	—	·01
Enteric Fever	1	—	—	—	—	—	·32
Malta Fever	1	—	1	1	2	—	·34
Other Continued Fevers	29	—	—	—	—	—	·96
Cholera	—	—	—	—	—	—	—
Dysentery	22	—	—	—	3	—	1·80
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	480	4	—	4	15	—	21·59
Septic Diseases	—	—	—	—	—	—	—
Tubercle of Lung	3	—	1	1	3	—	·70
Other Tubercular Diseases	—	—	—	—	—	—	—
Syphilis	33	—	—	—	1	—	4·34
Gonorrhœa	180	—	—	—	2	—	24·41
Soft Chancre	31	—	—	—	—	—	3·02
Hydrophobia	—	—	—	—	—	—	—
Scabies	13	—	—	—	—	—	·34
Other Parasitic Diseases	24	—	—	—	—	—	·72
Scurvy	—	—	—	—	—	—	—
Alcoholism	3	—	—	—	—	—	·19
Rheumatic Fever	—	—	—	—	—	—	—
Rheumatism	16	—	—	—	—	—	·80
Debility	28	—	—	—	6	—	1·86
Other General Diseases	10	—	—	—	1	—	·56
LOCAL DISEASES.							
Diseases of the—							
Nervous System (Nervous)	11	—	—	—	2	3	·95
Nervous System (Mental)	2	—	—	—	2	6	·22
Eye	16	—	—	—	—	1	·56
Other Organs of Special Sense	23	—	—	—	—	1	1·12
Valvular Disease of Heart	11	—	—	—	11	5	2·21
Disordered Action of Heart	19	—	—	—	10	—	2·92
Other Circulatory Diseases	2	1	—	1	—	—	·12
Bronchitis	45	—	—	—	3	—	2·27
Pneumonia	4	—	—	—	—	—	·35
Pleurisy	10	—	—	—	—	—	·88
Other Respiratory Diseases	9	1	—	1	2	2	·93
Digestive	152	1	—	1	6	1	5·96
Lymphatic	7	—	—	—	—	—	1·02
Urinary	8	—	—	—	1	—	·88
Generative (except Soft Chancre)	15	—	—	—	—	1	·98
Organs of Locomotion	36	—	—	—	2	—	2·65
Connective Tissue	56	—	—	—	—	—	2·45
Skin	78	—	—	—	—	—	3·68
INJURIES.							
General	4	—	—	—	—	—	·33
Local	109	—	—	—	2	—	5·50
In Action	—	—	—	—	—	—	—
No appreciable disease	3	—	—	—	—	—	·20
Poisons	1	—	—	—	—	—	·01
Suicide	—	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	1,549	9	2	11	74	20	99·75

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among per 1,000 of the Strength, and the Average Ratios for 10 years.

Ratio per 1,000.					Average Ratio per 1,000 from 1896 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
·7	—	—	—	·03	13·3	—	—	—	·40
—	—	—	—	—					
1·3	—	—	—	·02					
·7	·66	—	—	·01	1·2	·48	—	—	·06
32·1	—	—	—	1·05	1·6	—	—	—	·05
·7	·66	—	—	·01	·1	—	—	—	·00
·7	—	—	—	·21	2·3	·54	·41	—	·46
·7	·66	1·31	—	·22	13·8	—	·14	—	·54
19·0	—	—	—	·63					
—	—	—	—	—	·1	·07	—	—	·01
14·4	—	1·97	—	1·18	5·9	·41	1·02	·07	·62
—	—	—	—	—	—	—	—	—	—
314·8	2·62	9·84	—	14·10	544·1	2·39	11·47	·75	19·26
—	—	—	—	—	·4	·14	·07	—	·05
2·0	·66	1·97	—	·46	2·9	·34	2·66	2·05	·58
—	—	—	—	—					
21·6	—	·66	—	2·85	100·5	·34	4·91	·75	10·37
118·0	—	1·31	—	16·01	196·5	—	·82	·07	17·66
20·3	—	—	—	1·98	105·4	—	—	—	9·30
—	—	—	—	—	—	—	—	—	—
8·5	—	—	—	·22	28·9	—	·61	·54	1·02
15·7	—	—	—	·47					
—	—	—	—	—	—	—	—	—	—
2·0	—	—	—	·12	4·9	·41	·20	·14	·21
—	—	—	—	—	23·8	·07	1·36	·34	1·36
10·5	—	—	—	·52					
18·4	—	3·93	—	1·22	22·0	—	6·42	1·16	1·21
6·6	—	·66	—	37	12·6	·14	·89	·07	·87
7·2	—	1·31	1·97	·62	15·6	·27	2·66	·95	1·02
1·3	—	1·31	3·93	·14	1·9	·14	1·84	1·71	·44
10·5	—	—	·66	·37	12·3	—	1·30	·68	·74
15·1	—	—	·66	·73	28·9	—	3·82	1·77	1·65
7·2	—	7·21	3·28	1·45	16·6	·41	5·32	2·73	1·72
12·5	—	6·56	—	1·91					
1·3	·66	—	—	·08					
29·5	—	1·97	—	1·49	33·8	·20	1·50	·48	1·86
2·6	—	—	—	·23					
6·6	—	—	—	·58					
5·9	·66	1·31	1·31	·61					
99·7	·66	3·93	·66	3·91	124·0	·82	4·50	1·43	4·88
4·6	—	—	—	·67	28·3	—	·34	—	3·04
5·2	—	·66	—	·58	3·5	·20	·61	·27	·27
9·8	—	—	·66	·64	20·3	—	·48	·14	1·10
23·6	—	1·31	—	1·74	14·7	·07	·89	·75	·76
36·7	—	—	—	1·61	33·8	—	·07	—	1·37
51·1	—	—	—	2·41	75·5	—	·27	·07	3·19
2·6	—	—	—	·22	2·9	1·57	—	—	·13
71·5	—	1·31	—	3·61	110·9	1·23	·75	·41	4·80
—	—	—	—	—	—	—	—	—	—
2·0	—	—	—	·13	4·3	—	—	—	·14
·7	—	—	—	·01	·1	·07	—	—	·00
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
1,015·7	7·21	48·52	13·11	65·41	1,607·7	10·31	55·35	17·33	91·11

ABSTRACT No. XIV.—TABLE showing the AVERAGE STRENGTH, SICK among the TROOPS stationed at NORTH CHINA during the Year 1906.

Average Strength, 500. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—
Other Eruptive Fevers	—	—	—	—	—	—	—
Influenza	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—
Enteric Fever	—	—	—	—	—	—	—
Malta Fever	—	—	—	—	—	—	—
Other Continued Fevers	26	—	—	—	—	—	·71
Cholera	—	—	—	—	—	—	—
Dysentery	11	—	—	—	1	—	·68
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	12	—	—	—	—	—	·43
Septic Diseases	—	—	—	—	—	—	—
Tubercle of Lung	—	—	—	—	—	—	—
Other Tubercular Diseases	—	—	—	—	—	—	—
Syphilis	17	—	—	—	—	—	1·51
Gonorrhœa	42	—	—	—	1	—	3·46
Soft Chancre	26	—	—	—	—	—	2·21
Hydrophobia	1	1	—	1	—	—	·00
Scabies	1	—	—	—	—	—	·02
Other Parasitic Diseases	4	—	—	—	—	—	·18
Scurvy	—	—	—	—	—	—	—
Alcoholism	—	—	—	—	—	—	—
Rheumatic Fever	—	—	—	—	—	—	—
Rheumatism	1	—	—	—	1	—	·36
Debility	6	—	—	—	1	—	·37
Other General Diseases	—	—	—	—	—	—	—
LOCAL DISEASES.							
Diseases of the—							
Nervous System (Nervous)	3	—	—	—	1	—	·16
Nervous System (Mental)	—	—	—	—	—	—	—
Eye	3	—	—	—	—	—	·20
Other Organs of Special Sense	1	—	—	—	—	—	·08
Valvular Disease of Heart	4	—	—	—	2	—	·13
Disordered Action of Heart	—	—	—	—	—	—	—
Other Circulatory Diseases	—	—	—	—	—	—	—
Bronchitis	12	—	—	—	—	—	·52
Pneumonia	5	—	—	—	—	—	·47
Pleurisy	2	—	—	—	—	—	·03
Other Respiratory Diseases	1	—	—	—	—	—	·10
Digestive	35	1	—	1	1	—	1·71
Lymphatic	12	—	—	—	—	—	1·33
Urinary	2	—	—	—	—	—	·04
Generative (except Soft Chancre)	4	—	—	—	—	—	·17
Organs of Locomotion	11	—	—	—	1	—	·51
Connective Tissue	4	—	—	—	—	—	·12
Skin	12	—	—	—	—	—	·51
INJURIES.							
General	—	1	—	1	—	—	—
Local	17	—	—	—	—	—	·79
In Action	—	—	—	—	—	—	—
No appreciable disease	1	—	—	—	—	—	·05
Poisons	—	—	—	—	—	—	—
Suicides	—	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	282	3	—	3	9	—	16·85

ADMISSIONS into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY with the Ratios per 1,000 of the Strength, and the Average Ratios for 3 Years.

Ratio per 1,000.					Average Ratio per 1,000 from 1903 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	3·9	—	—	—	·52
—	—	—	—	—	2·0	—	—	—	·07
—	—	—	—	—					
—	—	—	—	—	1·3	—	—	—	·03
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	8·6	1·97	·66	—	1·07
—	—	—	—	—	13·2	—	—	—	·52
52·0	—	—	—	1·42					
—	—	—	—	—	—	—	—	—	—
22·0	—	2·00	—	1·36	11·2	—	—	—	1·03
—	—	—	—	—	—	—	—	—	—
24·0	—	—	—	·86	27·6	—	·66	—	·81
—	—	—	—	—	2·0	1·32	—	—	·03
—	—	—	—	—	2·6	·66	1·97	—	·32
34·0	—	—	—	3·02	123·7	—	·66	—	7·97
84·0	—	2·00	—	6·92	218·4	—	—	—	15·54
52·0	—	—	—	4·42	71·7	—	—	—	5·70
2·0	2·00	—	—	·00	—	—	—	—	—
2·0	—	—	—	·04	7·2	—	·66	—	·40
8·0	—	—	—	·36					
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	2·0	—	—	—	·07
—	—	—	—	—	5·9	—	·66	—	·79
14·0	—	2·00	—	·72	5·3	—	1·32	—	·32
12·0	—	2 00	—	·74	9·9	·66	·66	—	·76
—	—	—	—	—					
6·0	—	2·00	—	·32	7·2	1·32	·66	—	·47
—	—	—	—	—	·7	—	·66	—	·11
6·0	—	—	—	·40	2·6	—	·66	—	·10
2·0	—	—	—	·16	5·3	—	·66	—	·23
8·0	—	4·00	—	·26	5·9	—	·66	—	·54
—	—	—	—	—					
—	—	—	—	—					
24·0	—	—	—	1·04					
10·0	—	—	—	·94	26·3	1·32	—	—	·87
4·0	—	—	—	·06					
2·0	—	—	—	·20					
70·0	2·00	2·00	—	3·42	56·6	1·32	·66	—	2·26
24·0	—	—	—	2·66	9·9	—	—	—	1·09
4·0	—	—	—	·08	3·3	—	—	—	·18
8·0	—	—	—	·34	14·5	—	—	—	·50
22·0	—	2·00	—	1·02	18·4	—	—	—	1·15
8·0	—	—	—	·24	13·2	—	·66	—	·56
24·0	—	—	—	1·02	16·4	—	—	—	·62
—	2·00	—	—	—	—	1·32	—	—	—
34·0	—	—	—	1·58	55·9	1·32	—	—	2·01
—	—	—	—	—	—	—	—	—	—
2·0	—	—	—	·10	6·6	—	—	—	·34
—	—	—	—	—	·7	—	—	—	·03
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
564·0	6·00	18·00	—	33 70	759·9	11·18	11·84	—	47·02

ABSTRACT No. XV.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS TROOPS stationed at STRAITS SETTLEMENTS during the year 1906, with the

Diseases.	Average Strength, 1,335. Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—
Other Eruptive Fevers	8	—	—	—	—	—	·29
Influenza	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—
Enteric Fever	1	—	—	—	1	1	·12
Malta Fever	—	—	—	—	—	—	—
Other Continued Fevers	62	—	—	—	—	—	1·56
Cholera	—	—	—	—	—	—	—
Dysentery	2	1	—	1	1	—	·13
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	180	1	—	1	8	—	6·73
Septic Diseases	1	—	—	—	—	1	·03
Tubercle of Lung	5	—	—	—	5	3	·77
Other Tubercular Diseases	—	—	—	—	—	1	—
Syphilis	42	—	—	—	5	—	4·08
Gonorrhœa	106	—	—	—	2	—	8·40
Soft Chancre	97	—	—	—	—	—	9·73
Hydrophobia	—	—	—	—	—	—	—
Scabies	2	—	—	—	—	—	·05
Other Parasitic Diseases	17	—	—	—	—	—	·73
Scurvy	—	—	—	—	—	—	—
Alcoholism	3	—	—	—	—	—	·11
Rheumatic Fever	—	—	—	—	—	—	—
Rheumatism	16	—	—	—	1	—	·83
Debility	22	—	—	—	6	—	1·37
Other General Diseases	8	—	—	—	—	—	·25
LOCAL DISEASES.							
Diseases of the—							
Nervous System (Nervous)	12	—	—	—	2	1	·41
Nervous System (Mental)	3	—	—	—	3	3	·24
Eye	14	—	—	—	3	2	1·12
Other Organs of Special Sense	43	—	—	—	5	4	2·30
Valvular Disease of Heart	3	—	—	—	2	1	·26
Disordered Action of Heart	12	—	—	—	1	—	·60
Other Circulatory Diseases	—	—	—	—	—	—	—
Bronchitis	10	—	—	—	—	—	·55
Pneumonia	—	—	—	—	—	—	—
Pleurisy	1	—	—	—	1	—	·27
Other Respiratory Diseases	2	—	—	—	—	—	·04
Digestive	99	1	—	1	—	—	2·66
Lymphatic	26	—	—	—	1	—	2·22
Urinary	4	—	—	—	1	1	·31
Generative (except Soft Chancre)	11	—	—	—	—	—	·49
Organs of Locomotion	17	—	—	—	1	—	1·18
Connective Tissue	17	—	—	—	1	—	·87
Skin	55	—	—	—	2	—	2·20
INJURIES.							
General	17	2	—	2	6	—	1·37
Local	78	1	—	1	—	—	3·91
In Action	—	—	—	—	—	—	—
No appreciable Disease	6	—	—	—	—	—	·15
Poisons	—	—	—	—	—	—	—
Suicides	—	(1)	—	(1)	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	1,002	6	—	6	58	16	56·33

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the Ratios per 1,000 of the Strength, and the Average Ratios for 10 years.

Ratio per 1,000.					Average Ratio per 1,000 from 1896 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	·1	—	—	—	·02
—	—	—	—	—	3·7	·09	—	—	·10
6·0	—	—	—	·22					
—	—	—	—	—	2·1	—	—	—	·08
—	—	—	—	—	—	—	—	—	—
·3	—	·75	—	·09	·9	·38	·38	—	·17
—	—	—	—	—	62·1	—	·09	—	1·68
46·4	—	—	—	1·17					
—	—	—	—	—	·1	·09	—	—	—
1·5	·75	·75	—	·10	3·7	·09	·19	—	·27
—	—	—	—	—	—	—	—	—	—
134·3	·75	5·99	—	5·04	442·5	1·51	7·75	·28	13·19
·2	—	—	—	·02	·2	·09	—	—	·01
3·7	—	3·75	2·25	·58	2·6	·47	1·42	·85	·38
—	—	—	·75	—					
31·5	—	3·75	—	3·06	107·3	·38	3·78	1·61	10·89
79·4	—	1·50	—	6·29	140·3	·09	·66	·28	10·47
72·7	—	—	—	7·29	71·9	—	—	—	6·30
—	—	—	—	—	—	—	—	—	—
1·5	—	—	—	·04	11·5	—	—	—	·28
12·7	—	—	—	·55					
—	—	—	—	—	—	—	—	—	—
2·2	—	—	—	·08	2·5	·09	—	—	·10
—	—	—	—	—	15·8	—	1·04	·19	1·16
12·0	—	·75	—	·62					
16·5	—	4·49	—	1·03	16·0	—	2·55	·57	1·23
6·0	—	—	—	·19	5·9	·09	·47	·19	·34
9·0	—	1·50	·75	·31	7·3	·76	1·70	1·23	·66
2·2	—	2·25	2·25	·18	2·0	—	1·70	1·70	·52
10·8	—	2·25	1·50	·84	10·2	—	1·32	·57	·65
22·2	—	3·75	3·00	1·72	18·7	—	·94	·57	·74
2·2	—	1·50	·75	·19					
9·0	—	·75	—	·45	7·7	·19	2·46	·76	·77
—	—	—	—	—					
7·5	—	—	—	·41					
—	—	—	—	—	14·3	·66	·47	·09	·91
·3	—	·75	—	·20					
1·5	—	—	—	·03					
74·2	·75	—	—	1·99	60·0	1·13	1·51	·28	2·22
19·5	—	·75	—	1·66	29·3	—	·28	·09	3·18
3·0	—	·75	·75	·23	2·2	·28	·19	—	·21
8·2	—	—	—	·37	21·4	—	·47	—	1·12
12·7	—	·75	—	·88	11·8	—	·38	·19	·60
12·7	—	·75	—	·65	24·4	—	—	—	·97
41·2	—	1·50	—	1·65	38·4	—	·09	·09	1·73
12 7	1·50	4·49	—	1·03	3·3	1·51	·66	—	·19
89·4	·75	—	—	2·93	87·9	·57	·28	·28	3·60
—	—	—	—	—	—	—	—	—	—
4·5	—	—	—	·11	4·0	—	—	—	·16
—	—	—	—	—	·2	—	—	—	·00
—	(·75)	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
750·6	4·49	43·45	11·99	42·19	1,235·1	8·50	30·79	9·82	64·90

ABSTRACT No. XVI.—TABLE showing the AVERAGE STRENGTH, ADMIS-among the TROOPS stationed in INDIA during the year 1906, with the

Average Strength, 70,193. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick
GENERAL DISEASES.							
Small-pox	87	4	—	4	—	—	9·47
Measles	60	—	—	—	—	—	3·71
Scarlet Fever	15	—	—	—	—	—	1·77
Other Eruptive Fevers	334	—	—	—	—	—	12·59
Plague	17	2	—	2	—	—	4·27
Influenza	804	—	—	—	3	—	27·80
Diphtheria	2	—	—	—	—	—	·28
Enteric Fever	1,095	224	—	224	115	—	224·11
Malta Fever	7	—	—	—	4	—	1·96
Other Continued Fevers	3,918	1	—	1	10	—	154·56
Cholera	64	46	—	46	—	—	2·58
Dysentery	1,068	37	2	39	59	1	79·09
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	12,601	21	1	22	136	—	460·71
Septic Diseases	25	6	—	6	—	1	1·70
Tubercle of Lung	114	12	5	17	91	*94	19·84
Other Tubercular Diseases	14	2	—	2	12	10	2·27
Syphilis	1,945	10	1	11	120	32	249·27
Gonorrhœa	4,287	—	—	—	11	3	406·96
Soft Chancre	2,005	—	—	—	—	—	208·56
Hydrophobia	2	2	—	2	—	—	·01
Scabies	374	—	—	—	—	—	16·77
Other Parasitic Diseases	670	—	—	—	10	4	24·72
Scurvy	2	—	—	—	—	—	·29
Alcoholism	170	6	—	6	3	1	8·00
Rheumatic Fever	23	1	—	1	5	1	2·56
Rheumatism	851	—	—	—	35	10	58·08
Debility	2,040	2	—	2	255	19	117·68
Other General Diseases	576	12	5	17	79	8	42·38
LOCAL DISEASES.							
Diseases of the—							
Nervous System (Nervous)	615	10	1	11	100	*48	43·16
Nervous System (Mental)	79	1	2	3	64	106	17·61
Eye	614	—	—	—	52	18	44·51
Other Organs of Special Sense	1,085	2	—	2	92	38	49·18
Valvular Disease of Heart	168	15	1	16	118	95	27·92
Disordered Action of Heart	492	1	—	1	104	18	43·87
Other Circulatory Diseases	198	30	1	31	45	14	14·98
Bronchitis	1,152	—	1	1	9	2	49·45
Pneumonia	241	20	—	20	7	—	24·08
Pleurisy	162	2	—	2	5	—	10·75
Other Respiratory Diseases	112	4	—	4	18	11	7·54
Digestive	7,738	132	6	138	212	36	333·21
Lymphatic	986	—	—	—	17	7	94·45
Urinary	152	10	—	10	21	14	12·12
Generative (except Soft Chancre)	1,036	—	—	—	17	2	58·55
Organs of Locomotion	1,260	1	—	1	67	30	71·98
Connective Tissue	1,834	1	—	1	12	1	86·02
Skin	3,113	—	—	—	9	2	143·42
INJURIES.							
General	379	70	—	70	8	3	16·02
Local	6,246	37	1	38	66	30	293·06
In Action	—	—	—	—	—	—	—
No appreciable disease	197	—	—	—	—	—	10·41
Poisons	109	8	—	8	—	—	18·70
Suicides	—	(21)	(1)	(22)	—	—	—
Details not available	—	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	61,138	732	27	759	1,991	659	3,612·98

* Includes one discharged in India.

SIONS into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK Ratios per 1,000 of the Strength, and the Average Ratios for 10 Years.

Ratio per 1,000.					Average Ratio per 1,000 from 1896 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
1·2	·06	—	—	·13	·7	·06	·00	—	·07
·9	—	—	—	·05					
·2	—	—	—	·03	3·3	·02	—	—	·13
4·8	—	—	—	·18					
·2	·03	—	—	·06	·1	·02	·00	—	·01
11·5	—	·04	—	·40	7·2	·03	·00	—	·30
·0	—	—	—	·00	·0	·01	·00	—	·00
15·6	3·19	1·64	—	3·19	21·6	5·34	·79	·05	3·30
·1	—	·06	—	·03	30·5	·03	·07	·01	1·35
55·3	·01	·14	—	2·20					
·9	·66	—	—	·04	·6	·51	—	—	·01
15·2	·56	·84	·01	1·13	22·3	·75	1·13	·09	1·64
—	—	—	—	—	—	—	—	—	—
179·5	·31	1·94	—	6·56	266·9	·57	3·80	·37	9·95
·4	·09	—	·01	·02	1·1	·11	·01	·01	·08
1·6	·24	1·30	1·34	·28	3·9	·73	1·92	1·33	·72
·2	·03	·17	·14	·03					
27·7	·16	1·71	·46	3·55	123·4	·26	5·25	1·97	12·65
61·1	—	·16	·04	5·80	127·9	·00	·36	·14	10·11
28·6	—	—	—	2·97	61·3	·00	·01	—	5·36
·0	·03	—	—	·00	·0	·03	·00	·00	·00
5·3	—	—	—	·24	12·2	·01	·40	·37	·55
9·5	—	·14	·06	·35					
·0	—	—	—	·00	·2	·00	·01	·00	·01
2·4	·09	·04	·01	·11	3·6	·09	·03	·01	·15
·3	·01	·07	·01	·04	22·5	·02	·90	·30	1·63
12·1	—	·50	·14	·83					
29·1	·03	3·63	·27	1·68	21·8	·02	3·18	·74	1·52
8·2	·24	1·13	·11	·60	7·0	·19	·46	·13	·51
3·3	·16	1·42	·68	·61	7·8	·29	1·25	·93	·58
1·1	·04	·91	1·51	·25	1·4	·03	1·24	1·39	·39
3·7	—	·74	·26	·63	10·2	·00	·68	·42	·63
15·5	·03	1·31	·54	·70	14·6	·01	1·10	·75	·81
2·4	·23	1·68	1·35	·40	12·7	·69	3·74	2·67	1·30
7·0	·01	1·48	·26	·62					
2·3	·44	·64	·20	·21					
16·4	·01	·13	·03	·70					
3·4	·28	·10	—	·34	27·4	·76	·57	·24	1·62
2·3	·03	·07	—	·15					
1·6	·06	·26	·16	·11					
110·2	1·97	3·02	·51	4·75	109·3	1·88	2·63	·65	5·02
14·0	—	·24	·10	1·35	24·9	·02	·24	·05	2·84
2·2	·14	·30	·20	·17	2·3	·17	·36	·19	·22
14·3	—	·24	·03	·83	14·3	·01	·22	·10	·88
13·0	·01	·95	·43	1·03	13·0	·02	·99	·58	·88
29·1	·01	·17	·01	1·23	22·4	·02	·09	·03	1·05
44·3	—	·13	·03	2·04	50·7	·01	·16	·07	2·24
5·4	1·60	·11	·04	·23	4·4	1·13	·16	·08	·22
39·0	·54	·94	·43	4·18	94·7	·65	·97	·51	4·31
—	—	—	—	—	·0	·00	·00	·14	·00
2·3	—	—	—	·15	2·6	—	—	—	·13
1·6	·11	—	—	·27	1·4	·12	·08	·00	·08
—	(·31)	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	·24
—	—	—	—	—	—	—	—	—	—
871·0	10·81	28·37	9·39	51·47	1,155·0	14·62	32·79	14·32	73·49

REPORT BY THE PRINCIPAL MEDICAL OFFICER HIS MAJESTY'S FORCES IN INDIA ON THE HEALTH OF THE BRITISH TROOPS SERVING IN INDIA DURING 1906.

Sickness and Mortality.

Vide. The average strength of the European troops serving in India during 1906, was 70,193 warrant officers, non-commissioned officers and men, a decrease of 801 on the preceding year.

The following statement shows the general position as regards the sickness and mortality in 1906 as compared with the previous year and the quinquennium :—

All Causes.	Ratio per 1,000 of Strength.		
	1900–1904.	1905.	1906.
Admissions	1016·5	833·6	871·0
Constantly Sick	64·69	52·41	51·47
Deaths	12·99	10 06	10·43
Invalids sent Home	34·91	21·21	28·39*

The health of the troops was very good but not quite as good as in 1905 ; with the exception of 1905, the admission and death-rates are the lowest on record.

The increase in the admission rate for 1906 is due chiefly to malarial fevers which caused 12,601 admissions (179·5 per 1,000) against 7,947 (111·9 per 1,000) in 1905.

The increase in the Invaliding rate is accounted for by more men having been sent to England for debility, diseases of the circulatory and digestive systems, and convalescents from enteric fever.

The average sick time to each soldier was 18·79 days, which is shorter than in the previous year by ·34 days, and less than the decennial average by 8·05 days.

The loss to India by deaths and invaliding to England was 2,752 warrant officers, non-commissioned officers and men, being at the rate of 38·82 per 1,000, an increase of 7·55 on the rate in the previous year.

* Including two discharged in India.

The following table shows the loss to India by death and invaliding for the past ten years :— *India.*

Year.	Total Number of Deaths and Invalids.	Ratio per 1,000.
1897	3,472	53·80
1898	3,852	58·90
1899	3,000	44·32
1900	2,911	48·07
1901	3,143	51·66
1902	3,143	51·92
1903	2,958	42·49
1904	3,266	46·40
1905	2,220	31·27
1906	2,725	38·82

The chief causes of sickness were malarial fevers, venereal affections, diseases of the digestive system, and injuries, which accounted for 18·0, 11·7, 11·0 and 9·4 per cent. respectively (*i.e.*, 50 per cent. altogether), of the total number of admissions from all causes.

The chief causes of death were enteric fever (224), abscess of the liver (107), and injuries (107), which accounted for 30·6, 14·6 and 14·6 per cent. respectively of the total number of deaths.

About one-third of the deaths were due to enteric fever, but it is satisfactory to note that the death-rate per 1,000 (3·19) from this disease is much below the decennial average (5·34).

The chief causes of invaliding were, in order, diseases of the circulatory system (267), debility (255), diseases of the digestive system (212), nervous system (165*) and malarial fever (136), which altogether account for more than half the total number of invalids.

The fall during the last few years in the admission rate for all diseases has been increased by the introduction of the system of treating in barracks a number of cases which would have been previously admitted to hospital. This system was officially introduced in September, 1903, but had been in vogue to a certain extent for several years previous to this.

The numbers treated in barracks during 1904–06 are shown in the following statement :—

Year.	Average Strength.	Number of Cases under Treatment.	Average Number Constantly under Treatment.	Ratios per 1,000 of Strength.	
				Number of Cases under Treatment.	Average Number Constantly under Treatment.
1904 ..	70,413	22,438	480·80	318·7	6·83
1905 ..	70,994	27,458	485·10	386·8	6·83
1906 ..	70,193	27,887	467·48	397·3	6·66

* Includes one finally discharged in India.

India.

Though this system of treating slight cases in barracks considerably affects the admission rate, yet it would appear that this is not the only cause of the decrease, for the death rate has also fallen. Prior to 1904 the death rate was seldom lower than 15 per 1,000, occasionally it was between 12 and 13, but this was exceptional. For the years 1904, 1905 and 1906, however, the death rate has been 10·81, 10·06 and 10·43, respectively.

Arms of the Service.

The following table gives the health statistics, in ratios per 1,000 of strength, of the different arms of the service for 1906, as compared with the averages for the previous 10 years :—

—	Admissions.			Contantly Sick.			Deaths.		
Year.	Cavalry.	Royal Artillery.	Infantry.	Cavalry.	Royal Artillery.	Infantry.	Cavalry.	Royal Artillery.	Infantry.
1896–1905	1189·9	1183·0	1170·1	76·37	71·56	73·31	17·81	17·01	13·53
1906	992·9	951·5	849·6	59·74	52·82	49·75	9·76	14·74	9·70

The statistics from which the table was prepared show that the death rate of the mounted branches of the service has been higher every year (excepting one, 1896) than that of the dismounted, and that of the constantly sick rate has been highest for the past eight years amongst the Cavalry.

From this it would, however, be incorrect to infer that the Infantry are healthier generally than the mounted branches of the service. In considering death rates of European troops it must be borne in mind that about 30 per cent. of the total number of deaths are due to enteric fever, and that there is a much greater prevalence of enteric fever amongst the Cavalry than Infantry.

If, however, the deaths from enteric fever for several years are deducted from those from all causes, it will be found that the death rate from all causes other than enteric fever, is much the same in the Cavalry and Infantry. Using therefore the death rates as an index of the health of the troops, it may be concluded that, with the exception of enteric fever, there is very little difference in health between the Cavalry and Infantry.

Age.

The following table shows the statistics of sickness, mortality, and invaliding among troops according to age :—

As has been the case for the past 10 years, the highest admission rate occurred amongst men from 20 to 25 years of age, and the lowest amongst men 35 years of age and upwards. The highest death and invaliding rates were amongst men from 40 years upwards. This, too, is the rule.

Age.		Average Annual Strength.	Actuals.			Ratio per 1,000.		
			Admissions.	Deaths.	Invaliding.*	Admissions.	Deaths.	Invaliding.
Under 20 years	1906 ..	2,357	1,480	9	28	627·9	3·82	11·88
	1905 ..	2,446	1,383	9	21	565·4	3·68	8·59
	Increase ..	..	*97*	..	*7*	*62·5*	*·14*	*3·29*
	Decrease ..	*89*	..	..	..	..	..	..
From 20 to 25 years	1906 ..	33,189	33,631	340	929	1,013·3	10·24	27·99
	1905 ..	34,243	33,449	333	700	976·8	9·72	20·44
	Increase ..	..	*182*	*7*	*229*	*36·5*	*·52*	*7·55*
	Decrease ..	*1,054*	..	..	..	..	..	..
From 25 to 30 years	1906 ..	23,530	20,250	256	694	860·6	10·88	29·49
	1905 ..	23,079	18,322	218	509	793·9	9·45	22·05
	Increase ..	*451*	*1,928*	*38*	*185*	*66·7*	*1·43*	*7·44*
	Decrease ..	..	..	..	..	..	..	..
From 30 to 35 years	1906 ..	7,909	4,537	85	235	573·7	10·75	29·71
	1905 ..	7,876	4,829	107	196	613·1	13·59	24·89
	Increase ..	*33*	..	..	*39*	..	..	*4·82*
	Decrease ..	..	*292*	*22*	..	*39·4*	*2·84*	..

* Including those discharged in India.

LENGTH OF SERVICE IN INDIA.—*continued.*

Service.		Average Annual Strength.	Actuals.			Ratio per 1,000.		
			Admissions.	Deaths.	Invaliding.*	Admissions.	Deaths.	Invaliding.
4 to 5 years	1906 ..	6,184	6,873	72	210	1111·4	11·64	33·96
	1905 ..	5,570	4,353	37	137	781·5	6·64	24·60
	Increase ..	*614*	*2,520*	*35*	*73*	*329·9*	*5·00*	*9·36*
	Decrease ..	..	..	..	..	..	..	..
5 to 10 years	1906 ..	7,574	9,037	120	480	1,193·2	15·84	63·37
	1905 ..	8,284	8,779	134	364	1,059·8	16·18	43·94
	Increase ..	..	*258*	..	*116*	*133·4*	..	*19·43*
	Decrease ..	*710*	..	*14*	..	..	*·34*	..
10 years and upwards	1906 ..	2,983	2,529	39	211	847·8	13·07	70·73
	1905 ..	2,914	2,561	57	167	878·9	19·56	57·31
	Increase ..	*69*	..	..	*44*	..	..	*13·42*
	Decrease ..	..	*32*	*18*	..	*31·1*	*6·49*	..
Not stated	1906 ..	647	15	..	..	23·2	..	..
	1905 ..	986	26	..	..	26·4	..	..
	Increase ..	..	..	..	..	..	..	..
	Decrease ..	*339*	*11*	..	..	*3·2*	..	..

* Including those discharged in India.

Small-pox.—There has been an increase of small-pox during the last few years :—

Year.	Admissions.	Deaths.	Ratio per 1,000 of Strength.	
			Admissions.	Deaths.
1897	24	4	·4	·06
1898	2	—	—	—
1899	14	1	·2	·01
1900	36	3	·6	·05
1901	20	3	·3	·05
1902	23	4	·4	·07
1903	68	8	1·0	·11
1904	49	4	·7	·06
1905	99	1	1·4	·01
1906	87	4	1·2	·06

Of the 87 cases which occurred in 1906, 71 were reported to have been successfully revaccinated.

In October of each year, all men (as well as women and children) are inspected and their medical history sheets examined. Those who do not show either satisfactory marks, or records of vaccination, are revaccinated. The numbers thus requiring vaccination have very greatly increased during the last few years :—

1902.	1903.	1904.	1905.	1906.
2,463	5,987	6,529	14,923	20,649

Steps are being taken in conjunction with the home authorities to remedy this.

On account of the well-known fact that vaccine rapidly becomes inert in high temperatures, vaccination is admittedly more difficult to carry out in India than in cold climates. Blaxall and Fremlin have shown that exposure for five minutes to a temperature of 37° C (98·6° F.) renders it inert. To ensure that failures shall not be due to this, instructions have been issued that, when unsuccessful, the operation shall be repeated until it is beyond doubt that the individual has been vaccinated with a vaccine, known from its effect on others, to be active. Arrangements have also been made to obtain particulars of samples of vaccine giving unsatisfactory results.

Reports show that at the end of the year 2·2 per cent. of the troops remained without successful revaccination.

India.

Enteric fever.—The amount of enteric fever varied very little from that in 1905, as the following table shows :—

	Ratios per 1,000.	
	Admissions.	Deaths.
1897	31·8	8·62
1898	36·3	10·00
1899	20·6	5·14
1900	16·0	4·77
1901	12·8	3·32
1902	16·7	4·29
1903	19·6	4·18
1904	19·7	3·76
1905	16·1	3·00
1906	15·6	3·19

As usual the incidence was greater in the large garrisons than in small ones; the admission rate per 1,000 for garrisons over 1,000 strong was 17·7 and for those under 1,000 strong 13·0.

The seasonal prevalence of the disease is different in two fairly well defined areas, viz., the north and east, comprising the 1st, 2nd, 3rd, 7th, and 8th Divisions, where the greatest prevalence is in the spring; and the west and south, comprising the 4th, 5th, 6th, and 9th Divisions, where the enteric fever season is in the autumn.

The following tables show as far as possible the influence of age and service in India on the incidence of enteric fever :—

Age.	1906.					1905.	
	Average Strength.	Admissions.	Deaths.	Ratios per 1,000 of Strength.		Ratios per 1,000 of Strength.	
				Admissions.	Deaths.	Admissions.	Deaths.
Under 20 years ..	2,357	25	5	10·6	2·12	13·5	·82
From 20 to 25 years	33,189	729	154	22·0	4·64	23·4	4·32
„ 25 „ 30 „	23,530	283	49	12·0	2·08	11·0	2·34
„ 30 „ 35 „	7,909	46	13	5·8	1·64	6·1	1·14
„ 35 „ 40 „	2,107	11	3	5·2	1·42	3·6	—
„ 40 and upwards ..	454	1	—	2·2	—	7·6	—
Not stated	647	—	—	—	—	—	—
Total ..	70,193	1,095	224	15·6	3·19	16·1	3·00

Length of Service in India.	1906.					1905.	
	Average Strength.	Admissions.	Deaths.	Ratios per 1,000 of Strength.		Ratios per 1,000 of Strength.	
				Admissions.	Deaths.	Admissions.	Deaths.
Under 1 year	14,682	342	57	23·3	3·88	27·2	4·34
1 to 2 years	14,136	283	57	20·0	4·03	20·7	3·34
2 „ 3 „	11,925	146	33	12·2	2·77	13·3	3·24
3 „ 4 „	12,062	176	36	14·6	2·98	13·3	3·02
4 „ 5 „	6,184	74	17	12·0	2·75	4·7	1·44
5 „ 10 „	7,574	64	21	8·4	2·77	7·8	1·57
10 years and upwards	2,983	10	3	3·4	1·01	4·1	·34
Not stated	647	—	—	—	—	—	—
Total	70,193	1,095	224	15·6	3·19	16·1	3·00

Diagnosis was assisted by the Widal reaction in 94 per cent. of the cases.

The question of how much of the enteric fever in India is caused by the *B. typhosus* and how much by one or other of the paratyphoid organisms is one not only of scientific interest but of considerable practical importance, especially in connection with the question of preventive inoculation. For it is not to be supposed that a vaccine prepared with the *B. typhosus* (Eberth) will protect against infections due to the *B. paratyphosus* "A" or "B" or other allied organisms. The following observations of Major B. H. Scott, Sanitary Officer, Northern Command, bearing on this point are of interest.

Two officers and a lady living in adjacent bungalows in Dehra Ismail Khan were, within a period of 5 weeks, attacked with enteric fever. The agglutinating power of the blood of one was not tested, that of the second only with *B. typhosus*, with which it gave a "positive reaction"; that of the third case agglutinated the *B. typhosus* in a dilution of 1 : 40, and the *B. paratyphosus* "A" in a dilution of 1 : 80. Samples of blood from a number of native soldiers in hospital with what was supposed to be malarial fever gave a negative result with *B. typhosus*, but four agglutinated the *B. paratyphosus* "A" in a dilution of 1 : 100.

As, however, the agglutinating reactions of these allied bacilli are relatively but not absolutely specific, the above results may have been due to a "group reaction" and do not necessarily prove that the infecting organism was a paratyphoid bacillus.

As regards the channel by which the disease is spread, at Peshawar an epidemic of 25 cases, which occurred between the 25th May and 1st July among all corps in the garrison, was thought to be possibly due to contamination of the piped water-supply. In June, the filtered water was found to contain an amount of organic matter above the normal, also "vegetable debris and blue-coloured organisms," indicating defective filtration. Sand for filtering purposes had been obtained by the contractor from a grossly dirty native dhobies' ghat, and though it was stated that this was not put on the cantonment filters but on the city filter close by, there was some doubt on this point. The suspected filter was put out of action and cleaned, and the epidemic ceased within 3 weeks.

At Ferozepore, 13 men of the Dorset Regiment and 2 others living at a distance, but drinking milk from the same source, were attacked during April and May; only 4 other cases occurring in the station during the time. The milk supply was from a native contractor who was admittedly short of cows at the time and supplemented his own stock of milk from outside sources, and boiling was not properly carried out.

Apart from these two somewhat doubtful ones, no examples of water or milk-borne epidemics have been recorded during the year, and the opinion seems steadily gaining ground as evidenced by the reports from almost all

India.

stations, that "latrine infection" and "contact" account for the vast majority of cases. Exactly how the bacilli get from the latrine or the infected individual to the fresh individual is still a matter of conjecture.

In support of this opinion it may be noted that 13 cases were reported as having occurred in orderlies nursing enteric fever patients, and 5 in-patients while in hospital for other diseases. As information on these points is not specifically asked for it is not improbable that others may have occurred.

It is well recognized that the conditions of camp life—where the methods of sewage disposal, though similar, are still more crude than in barracks—are particularly favourable for the spread of the disease; and a large number of cases of enteric fever are reported to have originated on the march or at manœuvres. A striking example of this is as follows:—Troops assemble in small parties at Rawal Pindi and march from there to the various stations in the Murree hills. The marches occupy from 3 to 6 days. The following table shows the number of which occurred during the 6 months or so during which these stations are open, and the number that were probably infected before arrival, either at their original stations or more probably at one of the camps on the march up. The 4 men at Barian were known to have been in the rest camp at Rawal Pindi at the same time as a gunner who arrived suffering from enteric fever, and remained in the camp a day; 2 were attacked 11 days and 2 16 days later.

Khan Spur, total cases	5,	of these	3	occurred within	22	days of arrival.
Lower Topa	„ 2	„	2	„	20	„
Upper Topa	„ 6	„	5	„	23	„
Barian	„ 5	„	4	„	16	„
Gharial	„ 3	„	1	„	26	„
Kalabagh	„ 1	„	1	„	8	„
Khyra Gali	„ 1	„	1	„	6	„
Murree	„ 5	„	3	„	11	„

Further evidence of contact infection, either direct or indirect, probably through the agency of latrines, is to be found in the frequency with which cases follow each other among the occupants of the same barrack room or group of barracks served by the same latrine. The intervals between the cases or groups correspond, in many instances, very closely with the incubation period of the disease. The following table gives a few instances of this which occurred during the year:—

Mhow.	Mhow—*contd.*	Peshawar.
Barrack No. 3-U.	**Barrack No. 1-L., R.A.**	**Barrack No. 7, R.A.**
18th January. 19th „ 19th February.	20th March. 13th April. 18th „	23rd May. 30th „ 29th June.
Barrack No. 3-L, Infantry.	**Barrack No. 4-U, Infantry.**	**Barrack No. 6, R.A.**
20th March. 22nd „ 10th April. 15th „	10th March. 11th „	20th June. 21st „ 26th „
Barrack No. 3-L, Cavalry.	**Barrack No. 4-U, Cavalry.**	**Barrack No. 1, Infantry.**
18th July. 24th July. 27th „ 11th August.	23rd July. 24th „ 5th August. „	5th June. 28th „
Barrack No. 2, R.A.	**Barrack No. 1-U, Infantry.**	**Barrack No. 7, Infantry.**
10th February. 12th March. 19th „ *3rd May.* *19th* „	17th March. 21st „ 16th April. 10th „	28th June. 30th „ **Barrack No. 4, Infantry.** 25th May. 18th June.

JHANSI.

Barrack No. 2 old.

8th August.
9th „
15th „
20th „
„ „
27th „

Barrack No. 20 old.

20th August.
„ „

LAHORE CANTONMENT.

Barrack No. 10.

30th December, 1905.
„ „
2nd January, 1906.
8th January.
13th January.
„ „
15th „
18th „

POONA.

Attached Section Barrack.

16th August.
18th „
21st „
23rd „
10th September.
18th „
28th „

Barrack No. 3, Wanouri.

29th July.
1st August.
21st „

POONA—*contd.*

Barrack No. 13, Wanouri.

5th August.
19th „

Barrack No. 4, Wanouri.

20th August.
27th „
3rd September.

Barrack No. 4, Ghorpuri.

2nd September.
4th „

Barrack No. 6, Wanouri.

7th September.
8th „

MEERUT.

Barrack No. 1, Cavalry.

9th May.
13th May.
15th „

Barrack No. 3, Cavalry.

22nd April.
11th May.
24th „

MUTTRA.

Barrack No. 6.

24th December.
„ „
25th „

Barrack No. 8.

26th December.
„ „
28th „

LUCKNOW.

Barrack No. 2, Infantry.

5th April.
19th „
27th „
21st May.
30th „

ROORKEE.

Latrine "A" with kitchen close.

Barrack No. 15.

15th August.

Barrack No. 2.

1st September.

Latrine "B" with kitchen close.

Barrack No. 16.

9th August.

Barrack No. 4.

22nd August.

Barrack No. 16.

26th August.

Barrack No. 4.

18th September.

The rôle probably played by the house-fly in the transmission of the disease is a matter deserving of further accurate study. The close correspondence of the season of greatest prevalence of flies with that of enteric fever, their accumulation in latrines and on food, and the great numbers in which they breed in filth trenches are matters of common observation.

An epidemic at Jhansi, in which 21 cases scattered among all the British corps, occurred in August and September. It is reported that "during the month of June there were very few flies in Jhansi, whereas at the end of the first week of July a sudden plague of flies settled down over the station generally, and continued through July and August."

An outbreak in the 2nd Royal Fusiliers began while they were in camp near Secunderabad in February. "Flies were very numerous and there were filth trenches about 2,000 yards from the camp."

At Mhow, during March, April and May, the number of flies was phenomenal. Thirty-five cases, out of 77 for the year, occurred during these months.

At Nasirabad 8 out of 14 cases for the year occurred during August when flies were abundant.

At Jubbulpore there was "a regular plague of flies during the earlier

tia. months of the year." Seventeen cases out of 29 for the year occurred during April and May.

Preventive Measures.—The following measures for preventing the spread of the disease have been pretty generally carried out. Evacuation of the barrack room in which cases have occurred, and segregation of the contacts, who are kept under supervision to detect early any fresh cases. Disinfection of the room, furniture, latrine, filth receptacles and carts, and of the barrack bedding and clothing of the patients. Isolation of the patients in hospital and disinfection of their bedding, clothes, utensils and excreta. Convalescents are kept isolated, and urotropine administered to them until there is reason to believe, from bacteriological tests whenever possible, that they are no longer capable of conveying the infection to others.

It has been thought that the disease is not infrequently introduced into stations by new arrivals, and to prevent its spread in such cases new arrivals are kept under observation, and parties of 10 and upwards segregated in separate barracks or tents with separate latrine accommodation; they are inspected daily for 28 days. Of 93 stations in which this was carried out cases occurred among the segregated men in 19, but as in many of these stations the disease was already present it is by no means certain that all the cases were really contracted before arrival.

Trial has been made during the year in a considerable number of stations of substituting a solution of a disinfectant for the earth in the latrine pans. Though, owing to the quantity of disinfectant required and the difficulty of obtaining its intimate contact with the excreta without breaking up the solids, complete disinfection is not obtained, yet the superficial disinfection must lessen the risks of infection being carried by flies; and by using a volatile disinfectant—carbolic acid or chlorinated lime—the latrines have been kept almost completely free from flies, decomposition of the excreta is delayed, offensive odour greatly lessened, and the breeding of flies in the trenching grounds diminished.

Though the trials have been on too small a scale to draw definite conclusions from, yet as far as they have gone the amount of enteric fever in the barracks in which the trials have been made, has, in most cases, been low both as compared with the same barracks in previous years and with other barracks in the same station during the time the trial was being carried on.

The following tables show the results in four stations, in each of which the method was used in the latrines of one corps :—

TABLE I.

Admission rate per 1,000 *for Enteric Fever from the barracks in which the trial was made.*

Year.	Ambala.	Lucknow.	Mhow.	Secunderabad.
Average 1899–05 ..	56·97	79·67	18·25	20·00
1906	13·13	41·20	29·19	23·15

TABLE II.

Admission rate per 1,000 *for Enteric Fever from all Corps in the stations, during the period of the trial.*

(The Corps in whose barracks the trial was made are in *italics*.)

Ambala.—1st January to 16th July, 1906. No enteric fever during the period.

Lucknow.—12th July to 31st October, 1906 :—

"O" Battery, Royal Horse Artillery	34·8
79th „ Royal Field Artillery	36·6
1st Oxford Light Infantry	2·2
1st Durham „ „	8·9
1*st Royal Dragoons*	5·6

TABLE II.—*continued.* *India*

Mhow.—21st May to 21st November, 1906 :—	
All other Corps	23·3
1st York and Lancaster Regiment	4·6
Secunderabad.—1st March to 31st August, 1906 :—	
13th Hussars	22·5
2nd Royal Fusiliers	16·7
Royal Horse Artillery and Royal Field Artillery ...	8·1
1st Manchester Regiment	7·7

The Government of India has sanctioned the provision of buildings for housing regimental nursing orderlies in hospitals. This will lessen the risk of their carrying infection to their comrades in barracks. The barracks will be built as funds become available.

Washable clothing which can be effectively disinfected has been provided for orderlies nursing enteric fever and other infective cases.

Antityphoid inoculation was recommenced during the autumn as a voluntary measure. The vaccine used is prepared at the Royal Army Medical College, and the inoculation has been carried out by officers who have been specially instructed in the subject. Sufficient time has not yet elapsed to justify conclusions being drawn as to the results.

A Standing Committee was appointed by the Government of India in July to investigate and advise on questions relating to enteric fever. The Committee, composed of officers of the Royal Army Medical Corps and Indian Medical Service (both Civil and Military) met under the presidency of the Principal Medical Officer, His Majesty's Forces in India, in August and again in October. A number of recommendations were made, of which some are being carried out, and those involving a considerable outlay are under consideration.

The Central Research Institute under Lieutenant-Colonel D. Semple, who is a member of the Standing Committee, are engaged in a special investigation of the bacterial side of the question and a certain number of officers of the Royal Army Medical Corps and Indian Medical Service are associated with them in the work.

Mediterranean fever.—Of the seven men who suffered from Mediterranean fever, two had recently arrived from Malta, one 8 months and the other a few weeks before being attacked. In two other cases the micrococcus was recovered from the blood; and the blood in two other cases gave an agglutination reaction, in one doubtful and in the other in a dilution of 1 : 80.

Cholera.—Eleven cases of cholera and 10 deaths (as well as a fatal case in an officer) occurred among the patients in the station hospital, Secunderabad, between the 4th and 16th August. Of these 8 were suffering from enteric fever, 2 from simple continued fever, and 1 from rheumatism. The incidence in men, most if not all of whom were in all probability living largely on milk, points strongly to this as the source of infection. Cholera was widely prevalent among the natives, military and civil, both in the cantonment and surrounding villages. The milk supply was obtained from two native contractors, and there is no evidence that it was boiled until the 14th August; the last case occurred on 16th August.

At Dinapore there were 4 cases and 3 deaths, all serjeants of the 1st Highland Light Infantry living in the serjeants' mess. It was thought to have been caused by uncooked fruit and vegetables brought from a locality where cholera existed, but the evidence of this is not complete.

At Meiktila there were 15 cases and 9 deaths. The first two cases were thought to have caught the infection in a billiard saloon in the bazar, near which cases of cholera were occurring. The epidemic which was occurring at the time in the town fell most heavily on the cow-keeping community, and milk was apparently hawked in barracks by these natives. The water-supply is from a lake and is filtered through sand, and piped to barracks; if this had been infected the out-break would almost certainly have been more widespread.

Dysentery and Liver Abscess.—Dysentery and liver abscess, undoubtedly preventable diseases, have not shown any reduction during recent years.

India.

	Ratio per 1,000.			
	Liver Abscess.		Dysentery.	
	Admissions.	Deaths.	Admissions.	Deaths.
1902	3·3	1·85	20·4	·69
1903	2·4	1·31	16·3	·59
1904	2·6	1·36	12·4	·41
1905	2·1	1·17	13·2	·46
1906	2·6	1·52	15·2	·53

They account for over 100 deaths a year, or half as many as enteric fever, as well as a large amount of sickness and invaliding.

We are still without accurate information as to what proportion of the dysentery occurring among troops is bacillary and what amœbic. That amœbic dysentery and tropical liver abscess are but different phases of the same disease there can, in the light of recent research, be little doubt. The simultaneous increase and decrease of the two in certain stations is additional evidence.

In Barrackpore, where both were extremely prevalent in the spring of 1903, measures were taken to try to lessen the amount. These measures chiefly consisted of treating the diseases as infectious, isolating patients, and disinfecting everything connected with them, but especially their excreta and discharges. The results are strong evidence that the disease is spread by these discharges.

	Admissions per 1,000.	
	Dysentery.	Liver Abscess.
1900	163·4	16·34
1901	304·4	35·2
1902	235·5	52·4
1903	151·1	31·1
1904	72·0	21·2
1905	55·9	10·5
1906	53·5	16·7

That the infecting organisms of both forms of dysentery are contained in bowel discharges is certain, possibly also in other discharges; and there can be little doubt that the means by which the diseases are propagated are similar to those of enteric fever. A recognition of this fact has no doubt largely contributed to the reduction which has during recent years occurred in enteric fever, and it is very necessary that similar isolation and disinfection should be carried out in all cases of dysentery and liver abscess.

Beri-Beri.—Of the 50 cases of beri-beri, 32 with 2 deaths occurred at Aden, and of these 26 were men of the 2nd Battalion, King's Own Scottish Borderers. The battalion arrived from Mandalay and Maymyo in December, 1905, and though no cases had been diagnosed in Burma there seems no doubt that a number of men suffered from the same symptoms before leaving, and one, invalided from Burma, died of the disease at Calcutta. Of the 32 cases, 31 occurred during the first half of the year, that is shortly after the arrival of the battalion. The disease is common among the natives of Burma. Though several of the men attacked were heavy beer drinkers, analysis of the beer used failed to detect arsenic in it. The beer used in Burma was of English manufacture.

Malarial fevers.—There is, no doubt, an increasing tendency to diagnose only those cases as malaria in which parasites are found in the blood, and to show other cases of fever of uncertain cause as simple continued fever. But the prophylactic use of quinine is now pretty general and it is well known that very few parasites are to be found in the peripheral blood after a few doses of this; many of the admissions, too, are for relapses in which parasites are often scanty, and in addition the "personal equation" is a factor in finding parasites when they are few in number. It must, therefore, be that a considerable number of cases of malaria are probably shown as simple continued fever; and in estimating the amount of the former we must take into consideration the amount of simple continued fever at the same time. Another cause of diminution of the figures for malaria during the last three years is that since September, 1903, the system of treating men out of hospital has been in force; and this no doubt affects the figures for malaria more than those of most other diseases, for slight cases of fever are among those most frequently so treated.

	Ratios per 1,000 of Strength.				
	Simple Continued Fever.	Malarial Fevers.			
	Admissions.	Admissions.	Deaths in the Command.	Constantly Sick.	Invalided.
1901	24·4	299·4	·51	11·11	6·87
1902	14·0	253·8	·69	9·25	4·05
1903	18·7	244·7	·44	8·21	3·51
1904	23·9	172·0	·33	6·80	3·68
1905	48·1	111·9	·13	4·47	1·77
1906	55·8	179·5	·30	6·56	1·94

From the following table it will be seen that malaria was exceptionally prevalent in Northern India (1st, 2nd, 3rd, 4th, and 5th Divisions). This prevalence was marked not only among the troops but in all sections of the community, so much so that in many places in the Peshawar and Rawal Pindi districts there was for a time considerable dearth of labourers in all branches of industry.

Divisions.	Simple Continued Fever.			Malaria.		
	Admissions per 1,000.			Admissions per 1,000.		
	1904.	1905.	1906.	1904.	1905.	1906.
1st (Peshawar) Division	57·9	123·6	74·8	195·7	178·9	686·0
2nd (Rawal Pindi) Division ..	10·4	35·6	64·6	181·7	51·4	173·5
3rd (Lahore) Division	18·2	66·2	79·9	225·4	50·1	122·4
4th (Quetta) Division	52·7	90·0	97·6	79·0	123·8	207·1
5th (Mhow) Division	9·8	47·2	56·8	292·0	184·3	349·7
6th (Poona) Division	4·5	7·8	9·0	169·2	155·6	134·6
7th (Meerut) Division	15·8	11·9	15·4	134·8	102·8	139·4
8th (Lucknow) Division	57·7	77·9	53·7	133·0	126·5	126·4
9th (Secunderabad) Division ..	14·7	20·0	53·8	102·0	77·8	59·4
Burma Division	39·7	80·5	121·8	156·0	124·8	112·7

India. Apart from readmissions, no less than 50 per cent. of the garrison at Peshawar, 40 per cent. at Nowshera, and 29 per cent. at Rawal Pindi were admitted to hospital during the last three months of the year for malaria.

This increased prevalence coincided with an early and prolonged rainfall during the autumn over most of this area, and an exceptionally heavy fall in some cases.

At Rawal Pindi the rainfall during the second half of the year exceeded the average for the preceding 9 years by 19·21 inches, and the number of days on which rain fell exceeded the average by 21.

A Special Committee was appointed to report on the prevalence of malaria in Peshawar, Nowshera, and Rawal Pindi during the autumn, and the measures recommended are being considered.

Of 3,611 cases in which the species of the infecting parasite was determined by microscopic examination, the percentage in which each parasite was found was—

Benign tertian	79·4
Malignant tertian	20·24
Quartan	·36

A few cases of mixed infection were found.

The relative proportions between the benign and malignant tertian parasites varied within very wide limits in different stations, and showed no apparent relation to the geographical position of the stations.

The following Anopheline mosquitoes were reported to have been found at certain stations :—

Station.	Species.	Season of Greatest Prevalence.
Rawal Pindi	*M. Rossii*	October.
	M. culicifacies	Do.
	Ce. pulcherrima	June to October.
Sailkot	*M. Rossii*	Middle of August to middle of October.
	M. culicifacies	
Lahore Cantonment ..	*M. Rossii*	September.
	M. culicifacies	Do.
Ferozepore	*M. Rossii*	September to November.
	M. culicifacies	
	N. Stephensi	
	N. fuliginosus	
	Ce. pulcherrima	
Ambala	*M. Rossii*	During rains.
	M. culicifacies	
Sabathu	*M. Rossii*	June and July.
	N. Jamesi	
Mhow	*M. Rossii*	
	M. culicifacies	
	M. Listoni	
	A. maculipennis	
	A. Lindsayii	
	A. culiciformis	

Station.	Species.	Season of Greatest Prevalence.
Kamptree	*M. Rossii*	August to October.
	M. culicifacies	
	N. Theobaldi	
	N. Jamesi	
	N. Stephensi	
Poona	*M. Rossii*	July to end of September.
	M. culicifacies	
Kirkee	*M. Rossii*	
Colaba	*M. Rossii*	
Dum-Dum	*M. Rossii*	June to December.
	N. fuliginosus	May to December.
	M. barbirostris	September to December.
Meerut	*M. Rossii*	
	M. culicifacies	
Rangoon	*M. Rossii*	
	N. Stephensi	
Mandalay	*M. Rossii*	June to December.
	M. culicifacies	
	M. Listoni	
	A. gigas	
Poonamalee	*M. Rossii*	October to December.
Bangalore	*M. Rossii*	July to September.
Khandala	*N. Theobaldi*	
Aden Hinterland	(*A.*) *arabiensis, n. sp.* ..	May to end of October.
	(*A.*) *dthala, n. sp.*	October to April.
	(*A.*) *tibani, n. sp.*	
	(*A.*) *azniki, n. sp.*	
	(*A.*) *jehafi n. sp.*	December to January.

Preventive Measures.—On account of their number and size the abolition of breeding places of mosquitoes, except on a small scale immediately around barracks, is not found as practicable as was once thought. Large excavations ("borrow pits"), made by digging earth for building the lines of native troops and servants' houses, exist in almost all cantonments, and are very favourable breeding places for mosquitoes. The filling in of these costs large sums of money, but it is to be hoped that before long it may be found practicable to put a stop to the further digging of these in or near canton-

India. ments for the construction of new buildings. Some stations contain large numbers of tanks which it is almost impossible to do away with.

Surface drainage is, in almost all cantonments, extremely defective, and, on account of expense, improvement is slow, but more attention is now being paid to this.

Irrigation by open channels for watering gardens and agricultural land exists in certain stations, and these channels are among the most favourable breeding places for the species of Anopheline mosquitoes which carry malaria. In Lahore, cantonment irrrigation has been stopped since August, 1905, and, in addition, considerable sums have been spent on improving surface drainage ; as a result of this there seems reason to believe that the malaria has been considerably lessened. The year 1905 was one of very low malaria prevalence, but in 1906 malaria was unusually severe in that part of India, and still the figures show a marked reduction from former years.

Admission rate for Malarial and Simple Continued Fevers in Lahore Cantonment.

1897	776·6
1898	1,254·4
1899	527·6
1900	1,128·9
1901	1,355·2
1902	316·0
1903	1,066·4
1904	584·3
1905	395·5
1906	474·0

In all malarious stations work is carried on under the organized supervision of medical officers, assistant surgeons, hospital assistants and soldiers to reduce undergrowth, remove small collections of water, and kill mosquito larvæ.

The prophylactic use of quinine is reported from 42 stations. The method mostly adopted has been to give 10-grain doses on two successive days weekly. In addition to this, men who have suffered from malarial fever have, on discharge from hospital, received continuous treatment with quinine for a month or more. The treatment of natives suffering from malaria who live near barracks has also received attention.

Steps are being taken to introduce a better pattern of mosquito net for hospitals, and to increase the number allowed.

At Rawal Pindi the 10th Hussars, who were suffering badly from malaria, were moved into camp about 1½ miles from their barracks, with good results.

The troops stationed in the fort at Delhi suffer severely from malaria during the autumn on account of the fort being situated on the bank of the Jumna, where intermittent flooding of large tracts of land leaves innumerable pools for mosquitoes to breed in, while on the other side it is bordered by the city. The British troops were this year, in September, moved into camp on the Ridge, about a mile from the river and the city. The following table shows the satisfactory results as regards malaria :—

Daily Admissions per 1,000 *of Strength for Malaria at Delhi.*

——	Fort.	Ridge.
August	7·2	—
September 1st to 24th	11·1	—
Do. 25th to 30th	—	23·0
October	—	3·0
November 1st to 14th	—	7·4
Do. 15th to 30th	15·2	—
December	1·4	—

Venereal diseases.—Compared with 1905, the admission ratios for all three diseases are distinctly lower; the death ratio for syphilis is also lower, but the invaliding rate is slightly higher.

The following table shows the incidence of venereal disease amongst the different arms of the service, for the years 1904–1906 :—

Ratio per 1,000 *of Strength.*

——	Cavalry.	Royal Artillery.	Infantry.
1904	191·5	204·2	209·6
1905	147·8	154·1	163·4
1906	87·7	125·2	124·4

The continued fall in the admission ratio for venereal diseases, and the low invaliding and death rates, are very satisfactory.

In the year 1895 the admission rate per 1,000 of strength for venereal diseases was 536·9, and the rate remained over 500 per 1,000 until 1898, when a most remarkable drop to 371 per 1,000 occurred in one year; and a steady fall has continued ever since, until in 1906 it is only 117·4 per 1,000, the lowest that has ever been recorded.

It may be asked, what was the cause of the decrease in 1898, and of the marked improvement which followed?

The disturbances on the North-West Frontier in 1898 may have had some effect in that fewer men were left in cantonments to contract the disease; but this would only account for a temporary fall. It was, however, noticed at the time that the admissions for venereal disease were more in the first half of the year, when the numbers on field service were largest, and less in the second half, when a large number of the field service men had returned to their stations. The reduction must therefore have been due for the most part to the influence of other causes.

Again, it may be stated that the fall during the years 1899–1902 was to some extent due to the fact that comparatively few young soldiers were sent to India at that time on account of the South African war, and that after the war the continued fall was due to the introduction of the out-patient system of treatment, which resulted in a lowered admission rate for all diseases.

Both these factors undoubtedly helped to lower the admission rate; the prevalence of plague, which has necessitated putting many bazars and native villages out of bounds, has also had some effect; but none of these factors will entirely account for the continued fall during the last few years.

Admission Rates per 1,000 of Strength.

——	Gonorrhœa.	Soft Chancre.
1904	96·2	54·7
1905	75·1	43·5
1906	61·1	28·6

Though, however, the gradual introduction of the out-patient system of treatment renders it impossible to state how much of the fall in the

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admission rate for syphilis is due to that cause, the fact that the admission rates for gonorrhœa and soft chancre, cases of which are not treated as out-patients, have fallen during the past few years, and that the invaliding rate for all forms of venereal diseases has fallen from 10·26 in 1897 to 1·87 in 1906 is proof of the reduction in the incidence of venereal disease.

Amongst the most important causes of this reduction are the following :—

1. The more thorough treatment of syphilis in the case of the soldier, whereby fewer relapses, necessitating readmission to hospital, occur, and fewer infectious men capable of spreading the disease are to be found.

This system of continued treatment of syphilis has resulted in a great saving to Government, in that the number of men invalided to England and finally discharged from the service has been greatly reduced. It has also resulted in greater efficiency, for many men who in the old days (when syphilis was imperfectly cured) would have been found on inspection unfit for active service, or who would on such service have broken down from recurrence of symptoms, are now fit and able to stand debilitating influences.

Another result of the continued (two years) treatment is that the time actually spent in hospital is now much less than it used to be, and many men who, some years ago, would have been in hospital, are now out and about, performing their duties as soldiers, except on one day a week (and that a holiday), when they attend hospital for observation or treatment.

2. The improvement of the general moral tone of the troops, the encouragement by officers of healthy games and amusements which tend to keep men in barracks, lectures pointing out the terrible effects of the disease, &c.

3. The enforcement of the Cantonment rules.

4. The improved comfort of the men in barracks following the development of regimental institutes.

It is on these lines, viz, thorough treatment, lectures showing the dangers of the disease, the encouragement of games, &c., and the enforcement of the Cantonment Code, that further progress can be made in reducing the prevalence of this disease.

To compare the admission rate of 1904 with previous years is impossible, for on June 1st, 1904, the "Syphilis Register" came into use. Between June 1st and December 31st, 1904, 2,947 men were placed on this Register, but a large number of these were old cases. However, if the numbers (fresh cases) placed on the "Syphilis Register" in 1905 and 1906 are compared, the following is shown, viz., 1,470 in 1905 compared with 936 in 1906. A real reduction has therefore taken place.

Treatment.—The success of the continuous method of treatment of syphilis has already been mentioned. No man's name is put on the "Syphilis Register" to undergo this long course of treatment until the fact that he is undoubtedly suffering from syphilis has been clearly established. Should there be any doubt, the case is kept under observation and if at the end of three months symptoms of syphilis are not present, the case is returned as "soft chancre."

If the results of the treatment of syphilis and gonorrhœa are striking, the arrangements for carrying it out are, when compared with a few years ago, equally so. In nearly all hospitals a room is set apart for the treatment of gonorrhœa, and progress is being made in the adoption of the lavage method of treatment, as well as the two-glass method of differential diagnosis. The old custom of giving a gonorrhœa case a syringe and allowing him to practically carry out his own treatment is a thing of the past. During the year a set of apparatus for the lavage treatment of gonorrhœa has been authorized, and included in the regular list of surgical instruments and appliances, on the scale of one set for each hospital of 75 beds and over.

This method of treatment, which at home and on the Continent has proved superior to all others, will, it is anticipated, lead to a considerable falling off in the number of relapses ; moreover, the cases are more thoroughly cured, and therefore serious sequlæ (stricture, &c.) are less likely to supervene.

The irrigation in gonorrhœa cases is carried out under the direct supervision of a medical officer or assistant surgeon, and not left to the man himself; the intramuscular injections in the case of syphilis are invariably given by a medical officer. Much more personal attention is given by medical officers to the treatment of venereal diseases than used to be the case, and this to some extent accounts for the good results obtained.

In almost all stations the intramuscular injection method of treatment is carried out; some medical officers still use soluble salts (Hydrag. perchlor.), but the majority use mercurial cream. Various discrepancies having been found in the manner of compounding the cream in different hospitals in India, a supply has been obtained from England.

Hydrophobia.—Statement showing the number of patients of the British Army treated at the Pasteur Institute, Kasauli, during 1906—

Officers	9
Officers' wives	6
Warrant officers	6
Non-commissioned officers and men	131
Soldiers' wives	4
Soldiers' children	14
Total	170

Of the 170 patients, 54 were bitten by animals proved to have had rabies, 11 by animals certified by a veterinary surgeon to have had rabies, and 105 by animals suspected to have had rabies. Not a single one of these cases developed hydrophobia.

Parasitic diseases.—The admission ratio, 15 per 1,000 of strength, for parasitic diseases is high. The following table shows that there has been an increase in the admission rate for these diseases during the past five years, due chiefly to scabies, but to a slight extent during 1902, 1903 and 1904, to the importation of cases of bilharzia hæmatobia from South Africa. The admissions for this latter disease have, however, only numbered 22 and 9, respectively, for 1905 and 1906:

Years.	Average Yearly Number of Admissions for all Parasitic Diseases (including Scabies).	Average Yearly Number of Admissions for Scabies.
1897-1901	631	137
1902-1906	1,040	402

Ringworm, under which heading a number of cases of "dhobies' itch" are included, accounts on an average for 300 cases yearly of the total number of admissions for parasitic diseases. It is noticed that at Lucknow this year (1906) there were 69 admissions for ringworm, and that some of the dhobies were found to be suffering from this disease. The necessity for regimental or garrison laundries for this, as well as for other more important reasons, is obvious.

Alcoholism.—It is satisfactory to note the small number (170) of admissions for alcoholism; with the exception of 1903, when the number was 169, it is the lowest yet recorded.

Compared with some years ago the reduction is very marked; for instance, in 1886, 1887 and 1888, the admissions numbered 883, 1,008 and 906 respectively, corresponding to ratios per 1,000 of strength of 14, 16 and 13, as compared with a ratio of 2·4 for 1906.

Debility.—There has been a large increase in the number of cases diagnosed as debility this year. The increased prevalence of malarial fevers may

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possibly account for this to some extent, due to medical officers in some instances having shown cases of debility following malarial fever as debility. At the same time it must be remembered that under this head are shown ill-defined conditions which are chiefly the result of climate, men who are seedy and done up, without any definite symptoms and requiring a few days' rest in hospital. The number is liable to considerable variation year by year.

Diseases of the eye.—There were 614 admissions for affections of the eye. This, however, does not in any way represent the amount of eye work (refraction in particular) which has been done by the specialists in ophthalmology.

For instance, a number of soldiers have either presented themselves voluntarily, or been sent by their commanding officers, for correction of errors of refraction, the glasses being purchased at their own expense. In this manner a certain number of otherwise good soldiers have had their distant vision so far improved as to render them good shots, and men have been retained in the service who would have been invalided.

Many officers and their families have also availed themselves of the presence in India of specialists in ophthalmology, and much work has been done in connection with schools (*see* "Schools," page 227), whereby 80 children with defective vision have been supplied with glasses, and many serious defects in the lighting, desks, &c., have been brought to notice.

With regard to the eye-sight of the soldier, it may be remarked that the vision of the men of four Infantry regiments has been carefully examined during the year, with a view to improving the shooting of soldiers with defective vision by the issue of suitable spectacles.

The following table shows the results of the examination :—

Vision.	Marksmen.	1st Class Shot.	2nd Class Shot.	3rd Class Shot.
6/6	428	856	728	128
6/9	18	39	46	11
6/12	9	37	45	19
6/18	..	14	21	10
6/24	..	4	12	9
6/36	..	..	1	2
	455	950	853	179
		2,437		

The experimental issue of glasses to a number of these men has, after a year's trial, given such encouraging results as to warrant a further trial limited to 3rd class shots. Of the 3rd class shots, the average number of which in a British Infantry regiment is 7 per cent., a certain number (about 25 per cent.) have poor vision. It is anticipated that the further trial will prove that some of these men can have their distant vision much improved by spectacles, and thus enable them to become 2nd or 1st class shots.

In the case of three of the regiments mentioned above, 70 per cent. of the men supplied with glasses improved considerably in their shooting.

Diseases of the circulatory system.—The admission, death and invaliding ratios for valvular disease of the heart, disordered action of the heart, and other circulatory diseases for 1906 show no improvement; the figures are practically the same as the average ratios for the decennium 1896–1905. Diseases of the circulatory system have headed the invaliding list for the past five years, and during the decennium 1896-1905 caused a loss to India by deaths and invaliding of 4·43 per 1,000 of strength.

It is, however, hoped the system of organization of physical training of recruits at the depôts in England, whereby the training of each recruit is *graduated* according to his ability, and the initial symptoms of cardiac

strain are carefully and systematically looked for, will lead to a diminution in the number of young soldiers with weak, irritable hearts, and a consequent fall in the admission, death, and invaliding rates for cardiac affections.

Endeavours are also being made in India to reduce the number of admissions for cardiac affections, by explaining to soldiers in lectures the bad effects on the heart of alcohol and excessive cigarette smoking, and the danger of over-exertion whilst training for sports, &c.

Suicides and self-inflicted injuries.—There were 21 cases of suicide as compared with 24 in 1905. Of these 8 were due to cut throat; 6 to gunshot wounds; 2 each to drowning and hanging; and 1 each to multiple injury, strychnine and oxalic acid poisons. The verdict in 16 cases was that the acts were committed whilst the men were temporarily insane; in 2 under the influence of alcohol; in 1 as a result of reduction to the ranks; 1 for impending discharge from the service; and in 1 case no reason was assigned. One of the men was 21 years of age; 2 each were 22, 23, 24, 25, 28, 31 and 32; 3 were 26; and 1 each 33, 35 and 37. With regard to length of service 1 each was of 1 year, 4 years, 6 years, 10 years, 14 years and 15 years; 2 each of 2, 3, 7 and 11 years; 4 of 5 years; and 3 of 13 years.

Sixteen cases of self-inflicted injuries were admitted into hospital. Of these 8 having ended fatally are shown above under suicides. Of the remaining 8 cases, 6 were wounds of the throat with a razor; 1 was of wounds of the lower jaw with a razor; and 1 of gunshot wound of the cheek. In 7 instances the men were under the influence of alcohol. Four men were invalided, the rest recovered and were discharged to duty.

Surgical operations.—The increase in the amount of operative surgery performed by officers of the Royal Army Medical Corps in India during recent years is shown by the fact that in 1895 and 1896 there were (including minor operations) only 327 and 486 operations performed, as compared with 1,613 in 1905 and over 1,442 in 1906.

To further illustrate this, the following table is inserted :—

—	Varix.	Varicocle.	Piles.	Abscess of Liver.	Radical Cure of Hernia.	Appendicitis.	Laparotomy.	Abdominal Operations of all Kinds.
1899	Not known	5	18	115	1	2	3	125
1900	12	2	12	85	6	4	1	103
1901	25	11	39	98	19	4	3	143
1902	19	6	41	135	23	4	2	176
1903	26	12	56	135	8	8	6	161
1904	21	19	103	130	18	9	13	172
1905	41	28	75	149	22	15	14	200
1906	49	20	64	168	28	22	9	229

These figures show that the increased facilities for operating by the provision of operating theatres, instruments, &c., have resulted in a corresponding increase of operations, and that it is possible to perform many of the more serious ones in this country with equal success to that attained in more temperate climates, and consequently the saving of men to the army in India who would otherwise have been invalided.

As operating rooms become more general in our military hospitals in India, further progress in this direction may be expected. Such rooms have been sanctioned during 1906 for the station hospitals shown in the following lists, and most of the 1st class operating rooms have already been established. Cases requiring operation which occur at small outlying stations are sent to the nearest station hospital where an operating room exists.

India.

(1) *List of stations at which 1st class operating rooms have been sanctioned in station hospitals.*

Ambala.	Meerut.	Ahmednagar.
Rawal Pindi.	Karachi.	Jubbulpore.
Peshawar.	Mhow.	Belgaum.
Lahore Cantonment.	Poona.	Secunderabad.
Calcutta.	Colaba.	Bangalore.
Allahabad.	Quetta.	St. Thomas' Mount.
Lucknow.	Aden.	Wellington.
Bareilly.	Nasirabad.	Rangoon.

(2) *List of stations at which 2nd class operating rooms have been sanctioned in station hospitals.*

Jullundur.	Agra.	Lebong.
Ferozepore.	Fyzabad.	Darjeeling.
Sialkot.	Cawnpore.	Naini Tal.
Nowshera.	Roorkee.	Landour.
Kasauli.	Ranikhet.	Jhansi.
Dalhousie.	Chaubattia.	Pachmarhi.
Murree.	Chakrata.	Mount Abu.
		Maymyo.

The following table shows the number of operations performed in India during the year. Minor operations are not included.

Operations.	Number of cases.	Results.					Remarks.
		Completely successful.	Partially successful.	Failed.	Died.	Invalided.	
Tumours—							
Excision of non-malignant new growths	11	10	1	..	..	..	
Excision of malignant new growth	1	..	..	..	1	..	
Removal of foreign bodies	2	1	1	..	..	..	
Arteries, ligature of	2	2	..	..	..	1	Ligature of radial for wound of wrist, and of Femoral for Traumatic aneurysm.
Veins—							
Varix	49	48	..	..	1*	..	
Varicocele	20	20	..	..	..	..	
Nerves—							
Union of divided	1	1	..	..	..	..	* Tetanus supervened.
Stretching of a nerve	2	2	..	..	..	..	
Bones—							† Amputation of finger later.
For necrosis	5	4	..	1†	..	..	
For carious bone	5	5	..	..	..	..	
For ill-united fracture	6	4	2	..	..	2	
For recent fractures	9	8	1	..	..	4	
For hammer toe (excision of head of phalanx)	3	3	..	..	..	..	
Joints—							
Reduction of recent dislocation	1	1	..	..	..	..	
Incision with drainage	1	1	..	..	..	..	
Removal of loose cartilage	1	1	..	..	..	..	

Operations.	Number of cases.	Results. Completely successful.	Partially successful.	Failed.	Died.	Invalided.	Remarks.
Muscles, tendons and fasciæ—							
Union of divided tendon ..	2	2	..	..	..	..	
Amputations—							
Finger	10	10	..	..	..	1	
At shoulder joint	1‡	..	..	..	1	..	‡ For gangrene following wound of finger.
Toes	18	18	..	..	..	..	
Foot	1	1	..	..	..	..	
Thigh	1	..	1	..	..	1	
Hand	1	1	..	..	..	1	
Skull and brain—							
Trephining for fractured skull..	3	1	..	..	2	1	
Trephining for operations on the brain	1	..	..	..	1	..	
Trephining for mastoid disease	1	1	..	..	..	..	
Eye—							
Iridectomy	1	1	..	..	..	1	For Glaucoma.
Excision of eye-ball	2	2	..	..	..	..	
For strabismus	1	1	..	..	..	..	
Larynx—							
Tracheotomy	1	..	..	..	1	..	For fracture of Thyroid and Cricoid Cartilages. Pneumonia supervened.
Thorax—							
Drainage of pleural cavity with excision of rib, for empyema	4	2	1	..	1	1	
Abdomen—							
Excision of Appendix	13	11	..	..	2	2	
Opening Appendix abscess ..	9	5	1	..	3	3	
Intestinal obstruction	3	..	..	..	3	..	
Laparotomy for other causes ..	9	2	..	..	6	..	2 Enteric Fever (perforation).
Hernia (radical cure)	28	28	..	..	..	..	
Abscess of liver	168	41	39	..	88	39	1 Actinomycosis of Liver.
Rectum and anus—							1 Dysentery (suspected appendicitis).
Fistula in ano	9	9	..	..	..	..	
Anal fissure	1	1	..	..	..	..	
Hæmorrhoids	64	64	..	..	..	1	
Other rectual operations ..	4	3	..	..	..	1	
Bladder and urethra—							
For stricture of urethra—							
(1) By int. urethrotomy ..	1	1	..	..	..	..	
(2) By ext. „ ..	1	1	..	..	..	..	
Male generative organs—							
Undescended testicle	2	2	..	..	..	..	
Radical cure of hydrocele ..	5	5	..	..	..	..	
Castration	4	4	..	..	..	..	

INVALIDING.

India.

The improvement in the invaliding rate, which was one of the features of 1905, has not been maintained. Four hundred and eighty-seven more men were sent Home as invalids during 1906 than in the previous year, and judging by the returns received up to date, a still furthur increase is to be expected during 1907, no less than 1,307 invalids having already (January to April), embarked for England.

Still the invaliding ratio, 28·39 per 1,000 of strength, is well below the decennial average for 1896–1905, though if the statistics for the previous 10 years (1886–1895) are looked at it will be seen that on no occasion was the ratio as high as this.

The chief causes of the increase are debility, diseases of the circulatory and digestive systems, and enteric fever.

As regards age, the highest invaliding ratio this year occurred amongst men over 40 years of age; reference to records shows that this is the rule, and that the lowest ratio is almost invariably furnished by men under 20 years of age.

The invaliding ratio for the different arms of the service for 1906 and the previous ten years show that the Infantry invariably furnish the lowest ratio, and that in eight years out of the eleven the Royal Artillery show the highest.

The following table gives statistics of invalids sent home during the past 21 years:—

Years.	Average annual strength.	Total number of invalids sent Home.	Average annual number of invalids sent Home.	Invalids sent Home. Ratio per 1,000 of strength.
1886–1895..	67,324	16,499	1,650	24·51
1896–1905..	66,106	21,680	2,168	32·80
1906	70,193	1,993*	1,993*	28·39*

The Table shows that during the decennium 1896–1905, as compared with 1886–1895, there was a marked increase in the invaliding rate: if the actual number of men sent home is worked out it will be found that, on an average, 518 more men were invalided yearly than during the decennium 1886–1895. It is true that the number for 1905 fell considerably, but, as has been mentioned above, the number has risen again this year.

The invaliding rate must necessarily vary from year to year, according to the prevalence of malarial fevers and other debilitating diseases, active service, &c. No doubt the high invaliding rate during the decennium 1896–1905 was to a large extent due to the disturbances on the North-west Frontier and to the South African War, but the fall in the admission rate and the improvement in the health of the troops generally during this period appears to point to a greater tendency on the part of medical officers to invalid cases.

It may be said that had not a certain number of these men have been sent home, they would not have thoroughly recovered their health and strength in India, and some might have died; that by sending doubtful cases home the men returned to India fit and strong, and less susceptible to disease, and that this to some extent accounts for the lowered admission and death rates. It is also said the additional expense to Government involved in sending more men to England on change is fully compensated for by a lowered sick rate and greater health efficiency of the troops in India.

* Includes two [illegible] [illegible] in India.

India.

It is, however, recognized that a certain number of men are found to have almost completely recovered on arrival in England, due to change and the sea-voyage.

There is little doubt that some men would regain their health equally well if sent to the hills in India. The presence of a number of hill stations, with bracing climates, particularly in the North of India, does not appear to be sufficiently taken advantage of. Moreover, troops are not always kept in the hills as long as they should be, but returned to the plains before the malarial season is over. Attention is being paid to this matter, and it is hoped that the measures taken will result in a diminution in the number of invalids sent to England, without in any way tending to lower the health efficiency of the troops in India.

The attention of officers commanding station hospitals is being drawn to the necessity for a more careful examination of invalids prior to despatch from the station, with a view to erasing the names of those who have sufficiently recovered, as a result of the "cold weather," as to render change to England not essential.

These measures will not, however, affect the invaliding rates for mental and tubercular diseases, diseases of the circulatory system, &c. It is noticed that diseases of the circulatory system have headed the invaliding list for five consecutive years (1902–1906); prior to 1901 syphilis was first for some years but since that year this disease has gradually fallen lower and lower on the list.

The following table shows (in ratios per 1,000) the diseases which are the chief causes of invaliding for 1906; for purposes of comparison the ratios for previous years are given :—

Year.	Malarial Fevers.	Enteric Fever.	Syphilis.	Diseases of the Nervous System.	Dysentery.	Diseases of the Circulatory System.	Diseases of the Digestive System.	Tubercular Diseases.	Debility.
Decennium.									
1886-1895 ..	1·90	·25	2·81	2·27	1·03	2·71	1·99	1·38	3·27
1896-1905 ..	3·80	·79	5·25	2·49	1·13	3·74	2·63	1·92	3·18
1906	1·94	1·64	1·71	2·35	·84	3·80	3·02	1·48	3·63

It is hoped that the increased knowledge which is being imparted to all ranks by means of lectures, and the great attention which is being paid to matters of hygiene generally, will lead to a reduction in invaliding for enteric fever, malarial fevers and other preventable diseases.

The causes of the reduction in the invaliding rate for syphilis have been referred to when dealing with venereal diseases. For the ten years (1886–1895) the average yearly number invalided to England for syphilis was 189, for the next ten years (1896–1905) it was 347; for 1905 and 1906 it has only averaged 97.

Reduction in the invaliding rate for diseases of the circulatory system is to be looked for in the exercise of greater care in the selection of recruits, and in their physical training.

A decrease in invaliding for debility, malarial fevers, and to a less extent enteric fever, may be expected from a more extended use of the hill stations in India.

Fewer men have been sent home as insane during the past two years.

One of the features of the year has been the special attention paid to matters connected with the disposal of invalids in India. In August 1906 a committee was assembled at Army Headquarters, Simla, to consider these

India. matters. Three main factors appear essential if the large number of invalids annually sent home is to be successfully dealt with. These are (*a*) allotment of invalids to transports to be made by the General Officer Commanding at the port of embarkation (*b*) a hospital ship, and (*c*) hospital trains.

Bearing these factors in mind the Committee recommended that :—

(1) The "direct" embarkation of all invalids should be arranged for between the Principal Medical Officers of Divisions and the General Officers Commanding Bombay and Karachi Brigades.

(2) All embarkation arrangements for invalids should be made by the Principal Medical Officers, Bombay and Karachi Brigades, in consultation with the local authorities.

(3) That trains for invalids be distinct from troop trains, first class accommodation being arranged for serious cases, and second class carriages for others. These carriages to have proper sleeping and lavatory accommodation, a kitchen, and small medical staff, blankets, pillows, &c., also being provided.

(4) That all invalids be sent home in the "Plassy" or other selected ship.

This scheme is under consideration, and details are being worked out.

Undoubtedly the most satisfactory arrangement would be a hospital ship, dieted, thoroughly equipped and staffed, to convey all the invalids to England in three voyages.

Should this not be sanctioned, a distinct advance on existing conditions would be made by fitting the "Plassy" with more cots (50), and conveying the majority of invalids in her.

Whatever arrangement is sanctioned, hospital trains are necessary to convey invalids to the ships; there would be no difficulty in converting existing trains into hospital trains, as was done during the South African War. It may be remarked that these trains would form a very valuable addition to the mobilization equipment in India.

Officers.

The following table gives statistics for officers during the past few years :—

Officers. Ratio per 1,000 of Strength.

	Ratio of Sickness.	Death Ratio.	Invaliding Ratio.
1896–1900	849·5	17·25	70·72
1901–1905	779·4	11·52	60·01
1906	72·74	17·54	62·08

There has been a marked increase in the death rate, from 8·73 and 9·08 in 1904 and 1905 respectively, to 17·54 this year.

The incidence of enteric fever still continues greater amongst officers than men, the percentage of mortality to attack is, however, lower amongst the former.

Enteric Fever. Ratio per 1,000 of Strength.

	Men.		Officers.	
	Admissions.	Deaths.	Admissions.	Deaths.
1897	31·8	8·62	34·7	7·05
1898	36·3	10·00	40·9	8·08
1899	20·6	5·14	28·8	5·24
1900	16·0	4·77	21·9	5·06
1901	12·8	3·32	17·8	5·00
1902	16·7	4·29	30·6	6·21
1903	19·6	4·18	24·9	3·70
1904	19·7	3·76	20·5	2·62
1905	16·1	3·00	21·6	2·59
1906	15·6	3·19	35·5	6·30

It being thought that the greater prevalence of enteric fever amongst officers may, to some extent, be due to want of attention to the sanitation of officers' messes, an order has been embodied in Regulations directing that all such messes will be inspected periodically by medical officers, special attention being paid to kitchens and their surroundings. It is hoped, too, that with increased knowledge of matters pertaining to hygiene, young officers will exercise more care with regard to the sanitation of their bungalows and compounds.

Women and Children.

The average strength of women was 3,431; the number admitted 2,600 and the deaths 42, giving admission and mortality ratios of 757·8 and 12·24 respectively.

The average strength of children was 5,322; the number of admissions and deaths were 2,496 and 238. The admission and death rates were 469·0 and 44·72 respectively.

The chief causes of admission amongst women were, debility, ague, and diseases peculiar to women, and amongst children, ague and respiratory diseases.

The health of the women and children was not so good as the last two years, though the year 1905 was exceptionally good.

Enteric fever caused 12 per cent. of the deaths amongst women, and diarrhœa 18 per cent. amongst children.

Women and children still enjoy peculiar immunity from enteric fever as compared with men.

General Measures for the Prevention of Disease in progress in India during 1906.

In addition to measures relating to special diseases which have been mentioned under the headings enteric fever, malaria, small-pox, &c., the following have been in progress during the year:—

I.—*Removal and disposal of sewage.*—It is now almost universally recognized that the existing methods of sewage removal and disposal, constitute the most important factor in the spread of enteric fever and dysentery in India. The system is practically a pail system with the almost nominal use of dry earth; the contents of the latrine pans are emptied into receptacles at the latrines and from these into carts, in which they are removed and trenched, often not more than ½ to 1 mile from barracks.

The earthen floors of the latrines and urinals must be frequently contaminated by infected excreta. To prevent the dissemination of this

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infected dust by wind, attached to boots, &c., non-absorbent floors have been sanctioned for latrines, and have been laid down in several of the larger stations, and steps are now being taken to introduce new type plans of latrine and urinal; both will have impermeable floors.

The results of the trials which have been carried out of substituting a solution of a disinfectant for earth in the latrine pans have been referred to when speaking of enteric fever. It is thought that, pending the introduction of water-carriage of sewage, which is no doubt the only satisfactory solution of the sewage problem, this is likely to prove less dangerous than the present methods. Further trial, applied to all the British troop at twelve of the largest stations, is to be carried out.

The daily oiling of urine troughs has been found to greatly reduce the deposit of urine salts on them, and so to lessen the offensiveness. This is now being introduced generally.

In order to obviate the dangers of trenching sewage, among the chief of which are (*a*) that the soil is often dry and sandy, and is scattered about cantonments by winds, and (*b*) that flies are in many stations bred in enormous numbers in the trenching grounds, an experiment has been carried out during the year, at Meerut, of biological treatment. The object aimed at has been to get rid of the solids and produce an effluent easily dealt with by irrigation on even poor land, without causing it to become "sewage sick"; as it does not reach any water-course, a highly-purified effluent is not necessary. The plant consists of a septic tank, in which 3 gallons per head of water are added, and a percolating filter, the area of which, in proportion to the population dealt with, is considerably less than that usually allowed. The initial cost is small, the recurring cost not more than that of trenching, and the results, as regards dust and the breeding of flies, entirely satisfactory; while the financial return compares favourably with that obtained by trenching.

In hill stations the disposal of excreta is difficult, for the reasons that suitable land is seldom available for trenching, and there is not sufficient water for biological methods. Incineration seems, for the present, to offer the best solution of the difficulty. This has been carried out for some years at several hill stations, but the patterns of destructor so far tried have not been entirely satisfactory. A Horsfall destructor was obtained from England, and has been working at Ranikhet during the year. The results have been good, though it must be recognized that this is an expensive method of disposing of sewage, and only applicable where more economical methods cannot be used with safety to health.

II.—*Disinfection.*—Steam disinfectors have been supplied to the station hospitals at Meerut (Delépine's), Lucknow (Thresh's), and Colaba (Bowman's). As a result of the trial of these, as well as the Equifex previously tried at Rawal Pindi, it has been decided that, taking into consideration initial cost, simplicity of construction, the amount of skilled supervision required, and efficiency of disinfection, the Thresh pattern is more suitable for most stations; nine more of these are now being obtained.

Trials are being carried out at several stations of three patterns of boilers, Lieutenant-Colonel Allen's, Major Cummins', and another, for disinfecting excreta in hospitals. As soon as a suitable pattern is decided on it will be adopted for all hospitals. At present various locally-designed patterns are in use.

III.—*Water.*—The question of purifying water in camps on the march and on service has been the subject of further investigation. Griffith's heat-exchange water purifier, when worked under laboratory conditions, has given satisfactory results; but in its present form it is not well adapted for pack transport, and has not well stood the rough usage of camp. To work any form of heat-exchange water purifier specially trained men will probably be required, and for use with constantly-moving troops the apparatus must be of very simple construction, and more capable of standing rough usage than most of those at present on the market.

Steps are being taken to obtain some Slack and Brownlow filters, of the patterns for water carts and for pack transport, for trial in India.

Experiments, both in the laboratory and in the field, have been carried out, and are still in progress, of purifying water by chemical means.

IV.—*Laboratories.*—Additional apparatus has been sanctioned and ordered for the 22 clinical laboratories at Divisional and Brigade Headquarters; this consists of microscope, haemocytometer, centrifuge, and steam sterilizer.

V.—*Instruction in hygiene.*—Courses of not less than four lectures on the prevention of disease have been delivered to regimental officers, non-commissioned officers and men at all stations where British units are quartered. The lecturers have been R.A.M.C. officers selected by Divisional and Brigade Commanders, and attendance has been voluntary. Non-commissioned officers and men have attended in good numbers. These courses will, in future, be held annually.

A small manual on the prevention of disease in the army has been issued for use in connection with these lectures.

Courses of instruction in the practical methods of sanitation of lines, barracks, and cantonments have also been instituted for young medical officers. For this purpose, all lieutenants of the R.A.M.C. and I.M.S., on first arrival in the country, are posted for one month to Rawal Pindi, Poona, Lucknow, or Bangalore, according to the Command to which they belong. The instructors are nominated by the Principal Medical Officer, His Majesty's Forces in India, and the courses are carried out under the immediate supervision of the S.M.O., in consultation with the Command or Divisional Sanitary Officer.

VI.—*Sanitary supervision of barracks.*—Trial has been made in a few stations of training and employing a certain number of non-commissioned officers and men of each unit in the sanitary supervision of barracks; and regulations are about to be issued for this to be done in all British corps. The following numbers will be trained and employed:—

	Trained.		Employed.	
	Non-commissioned officers.	Privates.	Non-commissioned officers.	Privates.
Battery Royal Horse Artillery, Royal Field Artillery or Company, of Garrison Artillery ..	—	2	—	1
Regiment of Cavalry	2	8	1	4
Battalion of Infantry	2	16	1	8

Their duties will be carried out under the directions of the medical officer in charge of the lines, and will consist in supervising within their lines, water supplies, the sale of food (except by regimental institutes), conservancy, disinfection, cleanliness, and sanitary policing generally. While so employed they will not be detailed for other duties. Classes of instruction will be held annually.

VII.—*Committee on barracks, hospitals, &c.*—A Committee assembled by order of the Commander-in-Chief, under the presidency of the Principal Medical Officer, His Majesty's Forces in India, and composed of medical officers and officers representing most other branches of the service, met in August and discussed a number of subjects connected with housing, clothing, food, baths, schools, &c. Of the recommendations made, some have already been carried out, others are the subject of further enquiry.

VIII.—*Schools.*—Special attention has been given to the hygiene of schools, particularly with regard to the question of the vision of school children.

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Specialists in Ophthalmology were sent to the following stations to examine the vision of the children of British soldiers over 7 years of age, and to give the parents concerned necessary information regarding the spectacles required where such were considered necessary :—Rawal Pindi, Peshawar, Nowshera, Ambala, Sialkot, Calcutta, Bareilly, Fyzabad, Lucknow, Meerut, Karachi, Mhow, Ahmednagar, Poona, Kirkee, and Bombay. In addition, these officers were directed to report on the lighting of schools and the structural alterations necessary to improve it ; the type of desks and seats, with special reference to their adaptability for proper vision, and other subsidiary factors connected with the vision of school children.

The result of these inspections is briefly as follows :—

1. *Vision.*—This was tested by means of Snellen's test type, every child being required to read with each eye separately D—6 at 20 feet, and D—6 at 10 inches. Any child who could not read the types was subsequently seen at hospital, and a retinoscopy performed under a mydriatic. The parents were then informed of the nature of the visual defect, and advised as to what spectacles to procure. With few exceptions the parents provided the glasses at their own expense.

The result of the examination is shown in the following table :—

——	Actuals.	Percentages.	Remarks.
Total number examined ..	612	..	
Number with defective vision..	99	16	
Hypermetropia..	*55	11	*Includes 16 cases of squint.
Hypermetropic Astigmatism ..	12		
Myopia	7	2	
Myopic Astigmatism	7		
Mixed Astigmatism	7	1	
Leucoma	2	..	
Aphakia..	1	..	
Convergent squint	†18	3	†Hypermetropic 15. Leucoma 2. Aphakia I.
Divergent squint	‡1		‡Hypermetropic.
Trachoma	13	..	
Nystagmus	1	..	
Dislocation of lens	1	..	

Slight cases of hypermetropia, with $\frac{6}{6}$ vision, in which muscular equilibrium was perfect, and which did not require correction by glasses, are not shown amongst those with defective vision. In one case a child with myopic astigmatism was found to be wearing + I spheres. In another class, a child was found with $\frac{1}{60}$th vision (each eye), due to partial dislocation of the lenses.

In several cases, it is remarked that children who were considered wanting in intelligence became quite bright and intelligent after the supply of glasses.

The percentage of cases of myopia is much the same as is usually found in school children of the age examined. The large majority of children seen were below 12 years of age, whereas myopia attains its greatest frequency between 12 and 18 years.

It will be noticed that 19 cases of squint were found. According to Worth 75 per cent. of cases of unilateral squint appear before the end of the fourth year, and in 53 per cent. of alternating cases the deviation is seen before the end of the second year. This being so, it appears desirable that the eyes of all children should be examined by a medical officer for early signs of squint and other visual defects before school attendance is commenced.

2. *Lighting.*—With the exception of the school rooms at Karachi and Colaba, the lighting in every case was found to be defective, and in some instances very bad, notably the adults and elder children schools at Calcutta, Fyzabad, Ahmednagar, Rawal Pindi (cavalry) and Mhow (cavalry), and the infants' school at Meerut. The rooms referred to at Ahmednagar and

Mhow are described as very dark and ill-ventilated. In some schools the lighting is so defective that lamps have to be used on dull mornings. *India.*

The defective lighting is due chiefly to the fact that most schools were not built as such, but are old barrack-rooms re-appropriated, and so constructed that to improve the lighting is a difficult matter.

The defects in lighting have been brought to notice, and representations made indicating the structural alterations necessary to improve it so as to render the buildings suitable for school purposes. In the majority of cases this can be done at small expense by enlarging and increasing the number of clerestory windows, reducing the woodwork in windows, and increasing the glass area generally. The necessity for so arranging matters as to ensure a larger glass area on the side (left side of the pupils) from which the major portion of the light enters, has been pointed out.

It has also been recommended that sunshades be removed from all clerestory windows on the north side, and that those over other windows be hinged so that they may be raised during the winter months.

Attention has been drawn to the desirability of colour-washing the walls of schools pale green, and a recommendation made that an order be issued and embodied in Regulations to this effect. Softer light would be obtained and glare from the walls prevented. In nearly all schools the walls are at present white-washed.

3. *Duties of teachers in connection with eyesight.*—In addition to the defective lighting, a point which is very noticeable in visiting schools, is the fact that in many cases the light is not properly directed on the desks. In some cases children are to be seen sitting facing the glare from windows, in others with their backs to the light, or with the light from the right. This incorrect placing of desks is due in some cases to ignorance on the part of teachers of the fact that the preponderance of light should always come from the "left" of the scholars; in other cases it is due to inability on the part of schoolmasters to so arrange the desks as to obtain the above effect, as a result of the narrowness of the rooms, length of desks, or difficulty in arranging classes and black-boards so that a side light from the left is obtained.

Considering this, and the fact that 19 cases of squint were found, of which some had not been sent to hospital for treatment, it would appear that army schoolmasters fail to realize their responsibilities in preventing the deterioration of vision of the children who are constantly under their observation. With a view to rectifying this, a short list of instructions, detailing "the duties of schoolmasters in connection with eyesight," has been drawn up.

4. *Desks and seats.*—In all schools (with the exception of five desks at Rawal Pindi and a few at one or two other stations) the desks and seats are very unsuitable for children. Those supplied for elder children are in nearly all cases too high, being intended for men, the result being that children seated at such desks assume faulty positions, the feet hang some distance from the ground or rest in an awkward position on foot-rails, the weight is supported partly on the left arm and partly on the chest, which is pressed against the desk. In all cases the seats are too broad; in very few instances have back-rests been provided, and even when present they slope at too great an angle. The seats are forms, and are placed at varying distances from the desks, the result being that to reach the desk the body is bent forward and the head falls towards the desk as the muscles of the neck become tired. The eyes being too near the book, accommodation and convergence are strained, the eye-ball is compressed by the recti muscles, and myopia or strabismus is apt to result.

The following extracts from one of the Reports will serve to illustrate this:—

(*a*) "I noticed three children, about 8 years of age, sitting at a desk; the form was 20 inches in height, the front edge of the desk was 6 inches from a perpendicular let-fall from the scholar's edge of the desk, so to reach the desk, which was 29 inches in height (scholars' edge), they had to bend over. These children were stooping over their books writing, their eyes 2½ inches or so from the books. One

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of these children I found to be suffering from a high degree of myopia, the other two children were, probably unconsciously, copying the example of the elder myopic child."

(*b*) "The desks are those usually supplied for adults, with forms as seats. They are quite unsuitable for children. The forms are 22 inches high, front edge of the desk 32 inches, and the back edge 36 inches. Children of the age attending sit with their feet resting on the foot rails of the desk, their elbows spread out, and the head bent over the desk, the child's face when writing being about 6 inches from the desk. The seats are too high and have no backrests."

To reduce the height a number of adults' desks have been cut down, but by this means they are not rendered suitable in many respects for children, and are too low for the men.

In all infants' schools too either adults' desks have been cut down, or forms are used as desks should the present standard plan of infants' desk not have been supplied. Even if the standard plan desks have been supplied, they are so broad as to render it very difficult for a child to reach the ink, and are unsuitable in some other respects. Kindergarten work cannot be carried out on a sloping desk, hence the use of "forms" as desks. The seats are movable, and those which have back-rests slope at too great an angle.

The whole arrangement is most unsatisfactory and favours the development of squint, myopia, spinal curvature, and other deformities.

In India the provision of suitable desks for children, and the improvement of the lighting of schools is, if possible, a matter of greater importance than in England, on account of the fact that in India there are so many causes of enfeeblement of health (with consequent weakening of the muscles and tunics of the eye), such as malaria, residence in a tropical climate, &c.

The urgent necessity for the provision of a new type of infants' desks, and of some form of adjustable desks for adults and elder children, both of whom of necessity have to use the same desks (on account of want of accommodation), has been pointed out. A plan of a suitable infants' desk has been prepared, and a specimen of an experimental adjustable desk for adults and elder children has been made, and is being reported on.

5. *Books and type.*—Another important subsidiary cause in the deterioration of eyesight of school children was enquired into, namely, the use of small, ill-defined, closely set type, which even in a well-lighted room necessitates holding the book at a shorter distance than 12 inches from the eyes.

With two very notable exceptions, the type has been found large, distinct and well-spaced. The exceptions are the Bible and Prayer Book.

According to Appendix VII of the "Standing Orders for Inspectors of Army Schools, 1906, Course of Religious Instruction"..... "In every lesson a portion of Scripture will be read, in part by the teacher and in part by the children of Standards VI and VII."

The type of the Bible and Prayer Book at present in use is much too small; the necessity for at once changing these books with larger type has been represented.

6. *General remarks.*—The urgent necessity for improving the lighting of our army schools in India, and of supplying suitable desks for children, has been clearly shown by the reports submitted by the specialists in opthalmology.

The connection between short-sightedness and schools is intimate, statistics show that the amount of myopia is in direct proportion to the amount of education. "Acquired" myopia is frequently due to the insufficient lighting of schools or to the stooping of children over their books.

The present condition of our army schools in India, as regards lighting and desks, undoubtedly favours the development of myopia and deformities. If the lighting of the schoolrooms is defective, the child to see clearly has to stoop over the desk, and approximate the eyes unduly near the book. It

must be remembered that short-sightedness, when once established, is apt to become progressive, and to seriously handicap a child in after life. *India.*

The inspections now reported on have not only resulted in the correction of errors of refraction by the supply of glasses to 80 children, but it is hoped will also result in the remedying of serious defects (summarized below) in the schools. The attendance at school being compulsory, there can be no question as to the moral obligation to properly light the buildings and supply suitable desks and seats for children.

7. *Summary of Recommendations* :—

(*a*) That the lighting of schools be improved.

(*b*) That a new standard plan of infants' desk be adopted for infants schools.

(*c*) That a certain number of adjustable desks, of the pattern used in England, be supplied for adults and elder children's schools ; should the cost of supplying such desks be prohibitive, adjustable desks to be made locally.

(*d*) That all children should have their eyes examined for commencing squint and other defects before beginning school attendance.

(*e*) That the attention of schoolmasters be drawn to their responsibilities in preventing the deterioration of vision in children.

(*f*) That an order be issued, and embodied in regulations, to the effect that the walls of schoolrooms be colour-washed pale green once a year.

(*g*) That sun-shades from clerestory windows on the north side of all schools be removed, and that sun-shades over other clerestory windows be hinged so that they may be raised during the winter months.

(*h*) That the Bibles and Prayer Books at present issued to schools be replaced by others with larger type.

ABSTRACT No. XVII.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS TROOPS stationed at EGYPT, during the Year 1906, with the Ratios

Average Strength, 4,801. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
GENERAL DISEASES.							
Small-pox	—	—	—	—	—	—	—
Measles	1	—	—	—	—	—	·06
Scarlet Fever	8	—	—	—	—	—	1·33
Other Eruptive Fevers	30	—	—	—	—	—	·92
Influenza	20	—	—	—	—	—	·70
Diphtheria	1	—	—	—	—	—	·21
Enteric Fever	35	3	—	3	—	—	6·76
Malta Fever	24	2	1	3	16	—	5·35
Other Continued Fevers	213	—	—	—	—	—	3·80
Cholera	—	—	—	—	—	—	—
Dysentery	80	5	—	5	5	—	8·51
Yellow Fever	—	—	—	—	—	—	—
Malarial Fevers	141	—	—	—	1	—	4·70
Septic Diseases	3	1	—	1	—	—	·14
Tubercle of Lung	4	—	1	1	3	1	·86
Other Tubercular Diseases	3	—	—	—	1	—	·34
Syphilis	173	—	—	—	2	—	17·05
Gonorrhœa	426	—	—	—	3	1	41·93
Soft Chancre	257	—	—	—	—	—	22·61
Hydrophobia	—	—	—	—	—	—	—
Scabies	41	—	—	—	—	—	2·62
Other Parasitic Diseases	20	—	—	—	2	1	·86
Scurvy	—	—	—	—	—	—	—
Alcoholism	10	1	—	1	—	—	·33
Rheumatic Fever	3	—	—	—	—	—	1·07
Rheumatism	49	—	—	—	2	—	3·03
Debility	51	—	—	—	2	1	2·43
Other General Diseases	56	1	—	1	—	—	3·50
LOCAL DISEASES.							
Diseases of the—							
Nervous System (Nervous)	42	—	—	—	7	2	2·55
Nervous System (Mental)	6	—	—	—	7	16	2·12
Eye	96	—	—	—	10	5	5·98
Other Organs of Special Sense	130	—	—	—	11	8	6·06
Valvular Disease of Heart	26	1	—	1	15	9	4·05
Disordered Action of Heart	40	—	—	—	7	2	2·98
Other Circulatory Diseases	14	1	—	1	1	—	1·54
Bronchitis	38	—	—	—	—	—	3·40
Pneumonia	30	—	—	—	—	—	3·14
Pleurisy	25	—	—	—	1	—	2·26
Other Respiratory Diseases	4	1	—	1	—	—	·26
Digestive	682	5	1	6	8	4	21·71
Lymphatic	20	—	—	—	—	—	1·46
Urinary	9	—	—	—	4	3	1·20
Generative (except Soft Chancre)	76	—	—	—	—	—	4·15
Organs of Locomotion	77	—	—	—	3	3	3·66
Connective Tissue	98	—	—	—	1	—	3·93
Skin	285	—	—	—	—	—	13·82
INJURIES.							
General	16	2	—	2	3	—	·83
Local	279	3	—	3	4	4	13·61
In Action	1	—	—	—	1	—	·25
No appreciable disease	47	—	—	—	—	—	1·60
Poisons	—	—	—	—	—	—	—
Suicides	—	—	—	—	—	—	—
Cause unknown (refers to deaths only)	—	—	—	—	—	—	—
General Total	3,936	26	3	29	120	60	236·00

into HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK, among the per 1,000 of the Strength, and the Average Ratios for 10 years.

Ratio per 1,000.					Average Ratio per 1,000 from 1896 to 1905.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	·3	·05	—	—	·06
·2	—	—	—	·01					
1·7	—	—	—	·28	2·8	—	—	—	·32
6·2	—	—	—	·19					
4·2	—	—	—	·15	22·8	—	·05	—	·70
·2	—	—	—	·04	·6	·05	—	—	·05
7·3	·62	—	—	1·41	20·3	5·12	7·52	—	3·57
5·0	·62	3·33	—	1·11	72·8	09	2·66	·12	3·07
65·2	—	—	—	2·04					
—	—	—	—	—	·2	·21	—	—	·00
16·7	1·04	1·04	—	1·77	18·5	·64	2·54	·14	1·45
—	—	—	—	—	—	—	—	—	—
29·4	—	·21	—	·98	11·9	—	·36	—	·45
·6	·21	—	—	·03	·5	—	·02	—	·04
·8	·21	·62	·21	·20	3·0	·97	1·85	1·64	·78
·6	—	·21	—	·07					
36·0	—	·42	—	3·55	51·1	·12	·73	·24	5·23
88·7	—	·62	·21	8·74	105·3	·02	·28	·17	7·99
53·5	—	—	—	4·75	85·8	—	—	—	6·79
—	—	—	—	—	—	—	—	—	—
8·5	—	—	—	·55	9·2	—	·21	·14	·41
4·2	—	·42	·21	·18					
—	—	—	—	—	—	—	—	—	—
2·1	·21	—	—	·07	2·3	·19	—	—	·12
·6	—	—	—	·22	18·5	—	1·19	·35	1·42
10·2	—	·42	—	·63					
10·6	—	·42	·21	·51	15·9	—	3·03	·78	1·18
12·1	·21	—	—	·73	7·5	·07	·45	·09	·50
8·7	—	1·46	·42	·53	6·6	·28	1·52	1·09	·50
1·2	—	1·46	3·33	·44	1·7	—	1·59	1·73	·35
20·0	—	2·08	1·04	1·25	18·2	—	·71	·50	·93
27·1	—	2·29	1·67	1·26	13·2	·02	1·07	·66	·95
5·4	·21	3·12	1·87	·84	8·3	·62	2·32	2·28	·86
8·3	—	1·46	·42	·62					
3·3	·21	·21	—	·32					
20·4	—	—	—	·71	—	—	—	—	—
6·2	—	—	—	·65	19·4	·71	·90	·17	1·39
5·2	—	·21	—	·47					
1·7	·21	—	—	·08					
142·1	1·25	1·67	·83	4·50	91·9	·95	2·11	·38	3·50
4·2	—	—	—	·30	12 3	—	·17	·07	1·42
1·9	—	·83	·62	·27	1·4	·07	·24	·17	·15
15·8	—	—	—	·86	14·2	—	·21	·05	·76
16·0	—	·62	·62	·76	11·4	—	1·00	·69	·80
20·0	—	·21	—	·82	23·5	—	·19	·07	1·14
55·2	—	—	—	2·88	40·9	—	·33	·12	2·03
3·3	·42	·62	—	·17	2·1	1·26	·43	·07	·22
56·1	·62	·83	·83	2·81	66·3	·81	·90	·52	3·47
·2	—	·21	—	·06	·2	·09	1·75	·50	·27
9·8	—	—	—	33	3·7	—	—	—	·15
—	—	—	—	—	1·0	·09	—	—	·04
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
789·0	6·04	24·99	12·50	49·16	785·6	12·45	36·33	12·73	53·06

* *Includes one invalid discharged in the Command.*

ABSTRACT No. XVIII.—TABLE showing the AVERAGE STRENGTH, SHIP proceeding on and returning from Service Abroad, and from one during the Year 1906.

	Passage Out.		Passage Home.	
Strength	28,539		26,292	
Average Annual Strength...	1,610		1,574	
	Admitted.	Died.	Admitted.	Died.
GENERAL DISEASES.				
Small-pox	—	—	—	—
Measles	1	—	4	—
Scarlet Fever	—	—	—	—
Other Eruptive Fevers	—	—	1	—
Plague	—	—	1	—
Influenza	8	—	2	—
Diphtheria	—	—	—	—
Enteric Fever	2	—	3	1
Malta Fever	—	—	—	—
Other Continued Fevers	28	—	3	—
Cholera	—	—	—	—
Dysentery	—	—	10	—
Malarial Fevers	6	—	256	1
Septic Diseases	—	—	1	—
Tubercle of Lung	—	—	—	—
Other Tubercular Diseases...	—	—	—	—
Syphilis	53	—	41	—
Gonorrhœa	320	—	185	—
Soft Chancre	60	—	44	—
Hydrophobia	—	—	—	—
Scabies...	57	—	4	—
Other Parasitic Diseases	7	—	9	—
Scurvy	—	—	—	—
Alcoholism	3	—	6	2
Rheumatic Fever	3	—	—	—
Rheumatism	16	—	22	—
Debility	3	—	14	—
Other General Diseases	10	—	6	—
LOCAL DISEASES.				
Diseases of the—				
Nervous System { Nervous	7	—	16	2
Nervous System { Mental	—	—	—	—
Eye	17	—	18	—
Other Organs of Special Sense	15	—	18	—
Valvular Disease of Heart	—	—	1	—
Disordered Action of Heart	4	—	2	—
Other Circulatory Diseases	—	—	—	—
Bronchitis	45	—	77	1
Pneumonia	13	—	14	—
Pleurisy	3	1	1	—
Other Respiratory Diseases...	3	1	3	1
Digestive	163	2	184	—
Lymphatic	11	—	27	—
Urinary	—	—	4	—
Generative (except Soft Chancre)	61	—	22	—
Organs of Locomotion	12	—	14	—
Connective Tissue	48	—	46	—
Skin	85	—	109	—
INJURIES.				
General	3	—	1	1
Local	96	—	96	—
In Action	—	—	—	—
Poisons	1	—	—	—
Suicides	—	—	—	—
Not yet diagnosed	—	—	—	—
No appreciable disease	11	—	3	—
General Total	1,175	4	1,268	9

ADMISSIONS into HOSPITAL and DEATHS among the TROOPS ON BOARD Colony or Station abroad to another, with the Ratios per 1,000 of the Strength,

Intercolonial.		Ratio per 1,000 of Strength.					
18,224 658		Passage Out.		Passage Home.		Intercolonial.	
Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
—	—	—	—	—	—	—	—
—	—	·6	—	2·5	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	·6	—	—	—
—	—	—	—	·6	—	—	—
4	—	5·0	—	1·3	—	6·1	—
—	—	—	—	—	—	—	—
3	1	1·2	—	1·9	·64	4·6	1·52
1	—	—	—	—	—	1·5	—
2	—	17·4	—	1·9	—	3·0	—
—	—	—	—	—	—	—	—
2	—	—	—	6·4	—	3·0	—
69	—	3·7	—	162·6	·64	104·9	—
—	—	—	—	·6	—	—	—
2	—	—	—	—	—	3·0	—
—	—	—	—	—	—	—	—
13	—	32·9	—	26·0	—	19·8	—
111	—	198·8	—	117·5	—	168·7	—
27	—	37·3	—	28·0	—	41·0	—
—	—	—	—	—	—	—	—
6		35·4	—	2·5	—	9·1	—
15	—	4·3	—	5·7	—	22·8	—
—	—	—	—	—	—	—	—
1	—	1·9	—	3·8	1·27	1·5	—
1	—	1·9	—	—	—	1·5	—
6	—	9·9	—	14·0	—	9·1	—
5	—	1·9	—	8·9	—	7·6	—
2	—	6·2	—	3·8	—	3·0	—
3	—	4·3	—	10·2	1·27	4·6	—
—	—	—	—	—	—	—	—
4	—	10·6	—	11·4	—	6·1	—
3	—	9·3	—	11·4	—	4·6	—
1	1	—	—	·6	—	1·5	1·52
1	—	2·5	—	1·3	—	1·5	—
1	—	—	—	—	—	1·5	—
7	—	27·9	—	48·9	·64	10·6	—
1	—	3·1	—	3·9	—	1·5	—
1	—	1·9	·62	·6	—	1·5	—
—	—	1·9	·62	1·9	·64	—	—
42	—	101·2	1·24	116·9	—	63·8	—
22	—	6·8	—	17·2	—	33·4	—
1	—	—	—	2·5	—	1·5	—
5	—	37·9	—	14·0	—	7·6	—
5	—	7·5	—	3·9	—	7·6	—
23	—	29·8	—	29·2	—	35·0	—
42	—	52·8	—	69·2	—	63·8	—
—	—	1·9	—	·6	·64	—	—
49	—	59·6	—	61·0	—	74·9	—
—	—	—	—	—	—	—	—
—	—	·6	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
1	—	6·8	—	1·9	—	1·5	—
492	2	729·8	2·48	805·6	5·72	732·5	3·04

ABSTRACT No. XIX.—TABLE showing the general HEALTH STATISTICS of the various CORPS which served in the UNITED KINGDOM during the year 1906.

Battery, Company or Battalion.	Corps.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years at Home since last return from Service Abroad.
							Admitted.	Died.	Invalided.	Average Constantly Sick.				
	HOUSEHOLD CAVALRY.										days.	days.		
1st	Life Guards	455	257	—	4	8·94	564·8	—	8·79	19·65	7·17	12·70	Windsor, 7 months; London, 5 months...	90
2nd	Life Guards	385	349	—	6	12·40	906·5	—	15·58	32·21	11·76	12·97	Windsor, 5 months; London, 7 months...	90
	Royal Horse Guards	399	339	—	9	13·72	849·6	—	22·56	34·39	12·55	14·77	London, 12 months	90
	Other Household Cavalry	1	—	—	—	·19	—	—	—	190·00	69·35	—	—	—
	Total Household Cavalry	1,240	945	—	19	35·25	762·1	—	15·32	28·43	10·38	13·62		
	CAVALRY.													
1st	Dragoon Guards	639	334	2	3	19·46	522·7	3·13	4·69	30·45	11·11	21·27	Aldershot, 9 months; Hounslow, 3 months.	3
3rd	Dragoon Guards	593	457	1	5	23·05	770·7	1·69	8·43	38·87	14·19	18·41	Ballincollig, 3 months; Curragh, 9 months.	2
7th	Dragoon Guards	549	364	1	9	14·44	633·0	1·82	16·39	26·30	9·60	14·48	Canterbury, 12 months	2
2nd	Dragoons	609	357	3	10	24·25	586·2	4·93	16·42	39·82	14·53	24·79	Piershill and Maryhill, 12 months ...	2
5th	Lancers	655	341	1	11	17·47	520·6	1·53	16·79	26·67	9·73	18·70	Aldershot, 12 months	4
6th	Dragoons	345	325	—	12	19·43	942·0	—	34·78	56·32	20·56	21·82	Dublin, 3 months; Ballincollig, 1 month. To Egypt, 13.5.06.	4
7th	Hussars	599	338	—	7	18·87	564·3	—	11·69	31·50	11·50	20·38	Norwich, 12 months...	1
8th	Hussars	637	408	2	14	19·23	640·5	3·14	21·98	30·19	11·02	17·21	Aldershot, 9 months; Colchester, 3 months.	3

11th	Hussars	661	535	—	9	31·05	809·4	—	13·62	46·97	17·14	21·18	Curragh, 3 months; Dublin, 9 months...	3
14th	Hussars	416	231	2	5	13·47	555·3	4·81	12·02	32·38	11·82	21·28	Shorncliffe, 8 months. To India, 5.9.06	3
16th	Lancers	589	356	3	22	17·65	604·4	5·09	37·35	29·97	10·94	18·10	Aldershot, 1 month; Colchester, 11 months.	2
18th	Hussars	629	352	3	11	20·30	559·6	4·77	17·49	32·27	11·78	21·05	York, 12 months	4
19th	Hussars	633	521	1	12	28·86	823·1	1·58	18·96	45·59	16·64	20·21	Curragh, 12 months	2
20th	Hussars	582	269	—	9	15·01	462·2	—	15·46	25·79	9·41	20·37	Shorncliffe, 2½ months; Brighton and Canterbury, 9½ months.	2
21st	Lancers	600	480	5	21	28·43	800·0	8·33	35·00	47·38	17·29	21·62	Aldershot, 3 months; Hounslow, 9 months.	6
	Other cavalry	269	185	2	11	14·46	687·7	7·43	40·89	53·75	19·62	28·53	Various	—
	On Manœuvres	129	23	1	1	·68	178·3	7·75	7·75	5·27	1·92	10·79	—	—
	Total Cavalry of the Line ...	9,134	5,876	27	172	326·11	643·3	2·96	18·83	35·70	13·03	20·26		
	ROYAL ARTILLERY.													
Depôt.	Royal Horse Artillery	335	256	3	9	12·01	764·2	8·96	26·87	35·85	13·09	17·12	Woolwich, 12 months	Permanent.
A	Royal Horse Artillery	161	80	—	4	5·56	496·9	—	24·84	34·53	12·60	25·37	London, 3 months; Woolwich, 9 months	5
B	Royal Horse Artillery	122	63	—	3	3·56	516·4	—	24·59	29·18	10·65	20·63	Woolwich, 12 months	4
C	Royal Horse Artillery	140	53	—	3	2·97	378·6	—	21·43	21·21	7·74	20·45	Woolwich, 12 months	4
H	Royal Horse Artillery	107	65	1	1	3·39	607·5	9·35	9·35	31·68	11·56	19·04	Dorchester, 9 months; Salisbury Plain, 3 months.	2
I	Royal Horse Artillery	129	66	—	2	3·53	511·6	—	15·50	27·36	9·99	19·52	Ipswich, 5 months; Manchester, 4 months. From India, 8.3.06.	—
K	Royal Horse Artillery	98	50	—	—	3·02	510·2	—	—	30·82	11·25	22·05	Manchester, 8 months; Christchurch, 4 months.	2
L	Royal Horse Artillery	124	48	—	1	2·11	387·1	—	8·06	17·02	6·21	16·04	Ipswich, 9½ months. From India, 8.3.06	—
M	Royal Horse Artillery	164	64	2	1	4·46	390·2	12·20	6·10	27·20	9·93	25·44	Newbridge, 12 months	5
Q	Royal Horse Artillery	170	53	—	2	4·17	311·8	—	11·76	24·53	8·95	28·72	Newbridge, 12 months	5

Battery, Company, or Battalion.	Corps.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years at Home since last return from Service Abroad.
							Admitted.	Died.	Invalided.	Average Constantly Sick.				
	ROYAL ARTILLERY—*cont.*										days.	days.		
U	Royal Horse Artillery	49	15	—	—	·74	306·1	—	—	15·10	5·51	18·01	Christchurch, 4½ months. To Egypt, 14.5.06.	3
X	Royal Horse Artillery	159	53	—	1	2·02	333·3		6·29	12·70	4·64	13·91	Aldershot, 9 months; Woolwich, 3 months.	6
Y	Royal Horse Artillery	160	30	—	2	2·25	187·5	—	12·50	14·06	5·13	27·37	London, 10 months; Woolwich, 2 months	6
Z	Royal Horse Artillery	165	42	—	—	2·59	254·5	—	—	15·70	5·73	22·51	Aldershot, 12 months	6
AA	Royal Horse Artillery	161	47	—	1	2·38	291·9	—	6·21	14·78	5·40	18·48	Aldershot, 12 months	6
BB	Royal Horse Artillery	148	75	—	2	3·71	506·8	—	13·51	25·07	9·15	18·06	Aldershot, 3 months; Woolwich, 9 months.	6
Depôt No. 1.	Royal Field Artillery	439	342	3	8	17·03	779·0	6·83	18·22	38·80	14·16	18·18	Woolwich, 12 months	Permanent.
Depôt No. 2.	Royal Field Artillery	187	100	—	1	4·22	534·8	—	5·35	22·57	8·24	15·40	Maryhill, 12 months...	,,
Depôt No. 3.	Royal Field Artillery	230	123	1	1	4·46	534·8	4·35	4·35	19·39	7·08	13·23	Weedon, 12 months	,,
Depôt No. 4.	Royal Field Artillery	235	89	—	2	3·40	377·1	—	8·47	14·41	5·26	13·94	Newport, Mon., 12 months...	,,
Depôt No. 5.	Royal Field Artillery	223	126	1	6	4·90	565·0	4·48	26·91	21·97	8·02	14·19	Clonmel, 12 months	,,
Depôt No. 6.	Royal Field Artillery	187	104	1	2	2·83	556·1	5·35	10·70	15·13	5·52	9·93	Seaforth, 12 months	,,
Depôt No. 7.	Royal Field Artillery	313	313	—	11	11·46	1000·0	—	35·14	36·61	13·36	13·36	Preston, 12 months	,,
5th	Royal Field Artillery	94	52	—	2	2·80	553·2	—	21·28	29·79	10·87	19·65	Colchester, 12 months	4
9th	Royal Field Artillery	95	35	—	2	1·79	368·4	—	21·05	18·84	6·88	18·67	Colchester, 12 months	4
15th	Royal Field Artillery	121	55	—	1	2·20	454·5	—	8·26	18·18	6·64	14·60	Fethard, 7 months; Kildare, 5 months ...	4
17th	Royal Field Artillery	89	51	—	—	2·72	573·0	—	—	30·56	11·15	19·47	Colchester, 12 months	4

21st	Royal Field Artillery	122	39	—	1	1·27	319·7	—	8·20	10·41	3·80	11·69	Birmingham, 12 months	4
22nd	Royal Field Artillery	111	56	1	4	2·72	504·5	9·01	36·04	24·50	8·94	17·73	Limerick, 12 months	5
24th	Royal Field Artillery	99	36	—	2	2·60	363·6	—	20·20	26·26	9·58	26·36	Bradford, 12 months	1
27th	Royal Field Artillery	104	22	—	1	·95	211·5	—	9·62	9·13	3·33	15·76	Athlone, 12 months	4
31st	Royal Field Artillery	109	34	1	1	2·22	311·9	9·17	9·17	20·37	7·44	23·83	Sheffield, 7 months; Kilkenny, 5 months	2
34th	Royal Field Artillery	105	32	—	—	2·82	304·8	—	—	26·86	9·80	32·17	Bradford, 12 months	1
35th	Royal Field Artillery	116	54	—	2	2·70	465·5	—	17·24	23·28	8·50	18·25	Sheffield, 7 months; Waterford, 5 months	2
36th	Royal Field Artillery	118	27	—	1	1·15	228·8	—	8·47	9·75	3·56	15·55	Athlone, 12 months	4
37th	Royal Field Artillery	117	47	—	—	4·30	401·7	—	—	36·75	13·41	33·39	Newbridge, 12 months	4
39th	Royal Field Artillery	96	51	—	4	3·18	531·3	—	41·67	33·13	12·09	22·76	Woolwich, 12 months	4
42nd	Royal Field Artillery	114	91	3	—	4·07	798·2	26·32	—	35·70	13·03	16·32	Leeds, 12 months	4
43rd	Royal Field Artillery	120	85	—	2	5·73	708·3	—	16·67	47·75	17·43	24·60	Woolwich, 12 months	4
46th	Royal Field Artillery	95	22	—	2	1·57	231·6	—	21·05	16·53	6·03	26·05	Shorncliffe, 9½ months. From India, 8.3.06.	—
48th	Royal Field Artillery	115	40	—	—	2·22	347·8	—	—	19·30	7·04	20·26	Waterford, 7 months; Kildare, 5 months	4
50th	Royal Field Artillery	129	36	—	—	1·68	279·1	—	—	13·02	4·75	17·03	Limerick, 3 months; Clogheen, 9 months	5
51st	Royal Field Artillery	97	41	—	2	2·84	422·7	—	20·62	29·28	10·69	25·28	Shorncliffe, 9½ months. From India, 8.3.06.	—
53rd	Royal Field Artillery	117	80	—	1	3·86	683·8	—	8·55	32·99	12·04	17·61	Leeds, 12 months	4
54th	Royal Field Artillery	100	41	—	3	2·49	410·0	—	30·00	24·90	9·09	22·17	Shorncliffe, 9½ months. From India, 8.3.06.	—
55th	Royal Field Artillery	105	53	3	4	2·73	504·5	28·57	38·10	26·00	9·49	18·80	Sheffield, 7 months; Fethard, 5 months...	2
56th	Royal Field Artillery	133	47	—	4	2·61	353·4	—	30·08	19·62	7·16	20·27	Bulford, 12 months	1
59th	Royal Field Artillery	150	34	2	—	1·10	226·7	13·33	—	7·33	2·68	11·81	Deepcut, 12 months...	8
60th	Royal Field Artillery	101	21	—	1	·82	207·9	—	9·90	8·12	2·96	14·25	Athlone, 12 months	4
61st	Royal Field Artillery	112	58	—	1	4·20	517·9	—	8·93	37·50	13·69	26·43	Newbridge, 12 months	4
65th	Royal Field Artillery	128	36	1	1	1·38	281·3	7·81	7·81	10·78	3·93	13·99	Ballinrobe, 12 months	4

Battery, Company, or Battalion.	Corps.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years at Home since last return from Service Abroad.
							Admitted.	Died.	Invalided.	Average Constantly Sick.				
	ROYAL ARTILLERY—*cont.*										days.	days.		
68th	Royal Field Artillery	84	59	1	—	2·41	702·4	11·90	—	28·69	10·47	14·91	Woolwich, 12 months	4
70th	Royal Field Artillery	100	59	—	—	2·24	590·0	—	—	22·40	8·18	13·86	Clogheen, 3 months; Limerick, 9 months	5
71st	Royal Field Artillery	122	44	—	—	2·00	360·7	—	—	16·39	5·98	16·59	Kilkenny, 7 months; Kildare, 5 months	4
72nd	Royal Field Artillery	100	29	—	4	2·25	290·0	—	40·00	22·50	8·21	28·32	Bradford, 12 months	1
86th	Royal Field Artillery	108	81	—	—	5·51	750·0	—	—	51·02	18·62	24·83	Woolwich, 12 months	4
87th	Royal Field Artillery	118	53	—	4	3·27	449·2	—	33·90	27·71	10·11	22·52	Woolwich, 12 months	4
88th	Royal Field Artillery	93	70	1	7	3·99	752·7	10·75	75·27	42·90	15·66	20·80	Woolwich, 12 months	4
93rd	Royal Field Artillery	151	39	—	1	2·57	258·3	—	6·62	17·02	6·21	24·05	Deepcut, 12 months...	8
94th	Royal Field Artillery	158	36	1	1	2·66	227·8	6·33	6·33	16·84	6·15	26·97	Deepcut, 12 months...	7
95th	Royal Field Artillery	150	47	—	—	2·52	313·3	—	—	16·80	6·13	19·57	Aldershot, 12 months	7
96th	Royal Field Artillery	144	60	1	2	2·71	416·7	6·94	13·89	18·82	6·87	16·49	Aldershot, 12 months	7
97th	Royal Field Artillery	145	75	—	—	3·56	517·2	—	—	24·55	8·96	17·33	Aldershot, 12 months	7
98th	Royal Field Artillery	135	39	—	—	2·58	288·9	—	—	19·11	6·97	24·15	Deepcut, 12 months...	7
99th	Royal Field Artillery	132	26	1	1	2·47	197·0	7·58	7·58	18·71	6·83	34·68	Deepcut, 12 months...	6
100th	Royal Field Artillery	128	36	—	—	1·90	281·3	—	—	14·84	5·42	19·26	Deepcut, 12 months	6
101st	Royal Field Artillery	147	36	—	2	2·20	244·9	—	13·61	14·97	5·46	22·31	Bordon, 12 months	6

102nd	Royal Field Artillery	141	38	1	1	1·60	289·5	7·09	7·09	11·35	4·14	15·37	Bordon, 12 months	6
103rd	Royal Field Artillery	148	27	—	1	1·43	182·4	—	6·76	9·66	3·53	19·33	Bordon, 12 months	6
104th	Royal Field Artillery	140	32	1	1	1·52	228·6	7·14	7·14	10·86	3·96	17·34	Ewshott, 12 months...	6
105th	Royal Field Artillery	140	35	—	2	2·45	250·0	—	14·29	17·50	6·39	25·55	Ewshott, 12 months...	6
106th	Royal Field Artillery	143	43	—	1	2·59	300·7	—	6·99	18·10	6·61	21·98	Ewshott, 12 months...	6
107th	Royal Field Artillery	151	23	2	—	1·19	152·3	13·25	—	7·88	2·88	18·88	Bordon, 12 months	6
108th	Royal Field Artillery	134	35	—	3	1·77	261·2	—	22·39	13·21	4·82	18·46	Bordon, 12 months	6
109th	Royal Field Artillery	129	34	—	1	1·34	263·6	—	7·75	10·39	3·79	14·38	Bordon, 12 months	6
110th	Royal Field Artillery	116	42	1	—	1·93	362·1	8·62	—	16·64	6·07	16·77	Exeter, 10 months; Salisbury Plain, 2 months.	6
111th	Royal Field Artillery	127	60	—	2	2·25	472·4	—	15·75	17·72	6·47	13·69	Exeter, 10 months; Salisbury Plain, 2 months.	6
112th	Royal Field Artillery	119	55	—	5	1·95	462·2	—	42·02	16·39	5·98	12·94	Exeter, 10 months; Salisbury Plain, 2 months.	6
113th	Royal Field Artillery	133	90	—	2	5·68	676·7	—	15·04	42·71	15·59	23·03	Hilsea, 10 months; Salisbury Plain, 2 months.	6
114th	Royal Field Artillery	125	76	—	2	3·84	608·0	—	16·00	30·72	11·21	18·44	Hilsea, 10 months; Salisbury Plain, 2 months.	6
115th	Royal Field Artillery	124	97	—	3	5·70	782·3	—	24·19	45·97	16·78	21·45	Hilsea, 10 months; Salisbury Plain, 2 months.	6
116th	Royal Field Artillery	143	40	—	3	2·18	279·7	—	20·98	15·24	5·56	19·89	Bulford Camp, 12 months	6
117th	Royal Field Artillery	139	40	1	1	2·91	287·8	7·19	7·19	20·94	7·64	26·55	Bulford Camp, 12 months	6
118th	Royal Field Artillery	134	48	1	—	3·00	358·2	7·46	—	22·39	8·17	22·81	Bulford Camp, 12 months	6
119th	Royal Field Artillery	110	41	—	1	1·97	372·7	—	9·09	17·91	6·54	17·52	Bristol, 10 months; Salisbury Plain, 2 months.	6
120th	Royal Field Artillery	107	50	—	3	3·18	467·3	—	28·04	29·72	10·85	23·21	Coventry, 10 months; Salisbury Plain, 2 months.	6
121st	Royal Field Artillery	108	37	—	1	3·42	342·6	—	9·26	31·67	11·56	33·74	Trowbridge, 12 months	6
122nd	Royal Field Artillery	127	61	1	2	2·81	480·3	7·87	15·75	22·13	8·08	16·81	Bulford Camp, 12 months	6
123rd	Royal Field Artillery	130	59	—	6	3·21	453·8	—	46·15	24·69	9·01	19·86	Bulford Camp, 12 months	6
124th	Royal Field Artillery	136	35	2	3	2·22	257·4	14·71	22·06	16·32	5·96	23·15	Bulford Camp, 12 months	6
125th	Royal Field Artillery	123	50	1	2	3·16	406·5	8·13	16·26	25·69	9·38	23·07	Woolwich, 12 months	6

Battery, Company, or Battalion.	Corps.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years at Home since last return from Service Abroad.
							Admitted.	Died.	Invalided.	Average Constantly Sick.				
	ROYAL ARTILLERY—*cont.*										days.	days.		
126th	Royal Field Artillery	127	71	—	4	4·51	559·1	—	31·50	35·51	12·96	23·18	Woolwich, 12 months	6
127th	Royal Field Artillery	112	62	—	—	4·28	553·6	—	—	38·21	13·95	25·19	Woolwich, 12 months	6
128th	Royal Field Artillery	115	82	—	3	3·87	713·0	—	26·09	33·65	12·28	17·22	Newcastle-on-Tyne, 12 months	6
129th	Royal Field Artillery	109	59	1	1	3·26	541·3	9·17	9·17	29·91	10·92	20·17	Newcastle-on-Tyne, 12 months	6
130th	Royal Field Artillery	110	104	—	3	4·56	945·5	—	27·27	41·45	15·13	16·00	Newcastle-on-Tyne, 12 months	6
131st	Royal Field Artillery	130	55	2	1	3·19	423·1	15·38	7·69	24·54	8·96	21·17	Fermoy, 12 months	6
132nd	Royal Field Artillery	114	70	1	4	3·25	614·0	8·77	35·09	28·51	10·41	16·94	Cork, 12 months	6
133rd	Royal Field Artillery	119	55	—	3	3·19	462·2	—	25·21	26·81	9·79	21·17	Fermoy, 12 months	6
134th	Royal Field Artillery	133	25	1	1	1·72	188·0	7·52	7·52	12·93	4·72	25·11	Dundalk, 12 months...	6
135th	Royal Field Artillery	130	34	1	1	1·75	261·5	7·69	7·69	13·46	4·91	18·79	Belturbet, 12 months	6
136th	Royal Field Artillery	136	47	—	1	2·72	345·6	—	7·35	20·00	7·30	21·12	Kildare, 12 months	6
137th	Royal Field Artillery	127	45	—	3	1·84	354·3	—	23·62	14·49	5·29	14·92	Sheffield, 6 months; Kildare, 6 months...	6
138th	Royal Field Artillery	129	51	—	2	2·69	395·3	—	15·50	20·85	7·61	19·25	Sheffield, 6 months; Kildare, 6 months...	6
139th	Royal Field Artillery	123	60	—	—	2·91	487·8	—	—	23·66	8·64	17·70	Sheffield, 6 months; Kildare, 6 months...	6
140th	Royal Field Artillery	125	42	—	1	1·78	336·0	—	8·00	14·24	5·20	15·47	Cahir, 12 months	6
141st	Royal Field Artillery	115	38	—	—	1·63	330·4	—	—	14·17	5·17	15·65	Cahir, 12 months	6

142nd	Royal Field Artillery	121	35	1	—	1·41	289·3	8·26	—	11·65	4·25	14·70	Cahir, 12 months	6
143rd	Royal Field Artillery	108	37	—	1	1·45	342·6	9·26	—	13·43	4·90	14·30	Dundalk, 12 months	6
144th	Royal Field Artillery	104	44	—	1	1·97	423·1	—	9·62	18·94	6·91	16·34	Dundalk, 12 months	6
145th	Royal Field Artillery	99	38	—	—	1·78	333·3	—	—	17·98	6·56	19·68	Dundalk, 12 months	6
146th	Royal Field Artillery	142	72	1	—	3·01	507·0	7·04	—	21·20	7·74	15·26	Aldershot, 12 months	6
147th	Royal Field Artillery	142	61	—	1	2·18	429·6	—	7·04	15·35	5·60	13·04	Aldershot, 12 months	6
148th	Royal Field Artillery	139	87	1	1	3·51	625·9	7·19	7·19	25·25	9·22	14·72	Aldershot, 12 months	6
149th	Royal Field Artillery	141	41	1	2	3·39	290·8	7·09	14·18	24·04	8·77	30·18	Bulford Camp, 12 months	6
150th	Royal Field Artillery	138	58	1	4	3·27	420·3	7·25	28·99	23·70	8·65	20·58	Bulford Camp, 12 months	6
Depôt No. 1.	Royal Garrison Artillery...	164	43	—	1	1·07	262·2	—	6·10	6·52	2·38	9·08	Dover, 12 months	Permanent.
Depôt No. 2.	Royal Garrison Artillery...	135	80	2	1	4·82	592·6	14·81	7·41	35·70	13·03	21·99	Fort Rowner, Gosport	,,
Depôt No. 3.	Royal Garrison Artillery...	160	85	1	3	4·15	531·3	6·25	18·75	25·94	9·47	17·82	Plymouth	,,
Depôt No. 4.	Royal Garrison Artillery...	126	48	1	4	2·19	381·0	7·94	31·75	17·38	6·34	16·65	Seaforth	,,
Depôt No. 5.	Royal Garrison Artillery...	144	42	—	1	1·90	291·7	—	6·94	13·19	4·81	16·51	Scarborough	,,
Depôt No. 6.	Royal Garrison Artillery...	179	117	—	—	3·58	653·6	—	—	20·00	7·30	11·16	Great Yarmouth	,,
10 Coy.	Royal Garrison Artillery...	137	33	—	1	2·07	240·9	—	7·30	15·11	5·51	22·89	Queenstown, 12 months	—
11	Royal Garrison Artillery...	128	41	—	2	1·77	325·4	—	15·87	14·05	5·13	15·76	Golden Hill, 12 months	9
12	Royal Garrison Artillery...	145	64	1	—	1·59	441·4	6·90	—	10·97	4·00	9·07	Landguard Fort and Harwich, 12 months	9
13	Royal Garrison Artillery...	144	52	—	1	3·31	361·1	—	6·94	22·99	8·39	23·23	Guernsey and Alderney, 12 months ...	9
14	Royal Garrison Artillery...	95	30	4	2	5·50	315·8	42·11	21·05	57·89	21·13	66·91	Shoeburyness, 12 months	8
15	Royal Garrison Artillery...	152	29	1	—	1·30	190·8	6·58	—	8·55	3·12	16·36	Londonderry, 12 months	8
16	Royal Garrison Artillery...	126	55	—	—	3·79	436·5	—	—	30·08	10·98	25·15	Portsmouth, 12 months	—
17	Royal Garrison Artillery...	130	22	1	—	1·04	169·2	7·69	—	8·00	2·92	17·25	Sheerness, 12 months	—

Number. Company, or Battery.	Corps.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years at Home since last return from Service Abroad.
							Admitted.	Died.	Invalided.	Average Constantly Sick.				
	ROYAL ARTILLERY *cont.*										days.	days.		
18	Royal Garrison Artillery...	144	27	1	2	1·08	187·5	6·94	13·89	7·50	2·74	14·60	Sheerness, 12 months	—
19	Royal Garrison Artillery...	148	18	—	1	1·05	121·6	—	6·76	7·09	2·59	21·29	Sheerness, 12 months	—
20	Royal Garrison Artillery...	101	23	—	2	1·44	227·7	—	19·80	14·26	5·20	22·85	Jersey, 12 months	8
21	Royal Garrison Artillery...	125	51	1	1	4·27	409·0	8·00	8·00	34·16	12·47	30·56	Leith Fort, 12 months	8
22	Royal Garrison Artillery...	112	39	1	1	2·14	348·2	8·93	8·93	19·11	6·97	20·03	Leith Fort, 12 months	7
23	Royal Garrison Artillery...	118	43	..	—	2·78	364·4	—	—	23·56	8·59	23·60	Gosport, 12 months	7
24	Royal Garrison Artillery...	127	20	—	3	1·27	157·5	—	23·62	10·00	3·65	23·18	Newport, Mon., 12 months...	—
25	Royal Garrison Artillery	174	29	—	2	1·73	166·7	—	11·49	9·94	3·63	21·77	Pembroke Dock, 12 months	—
26	Royal Garrison Artillery...	129	40	1	—	2·51	310·1	7·75	—	19·46	7·10	22·90	Aldershot 4 months; Portsmouth, 8 months.	—
27	Royal Garrison Artillery...	161	31	1	1	1·24	192·5	6·21	6·21	7·70	2·81	14·60	Sheerness, 12 months	—
28	Royal Garrison Artillery...	124	27	—	1	·85	217·7	—	8·06	6·85	2·50	11·49	Weymouth, 12 months	5
29	Royal Garrison Artillery...	164	72	1	3	3·56	430·0	6·10	18·29	21·71	7·92	18·04	Portsmouth, 12 months	4
30	Royal Garrison Artillery...	125	40	—	1	1·44	320·0	—	8·00	11·52	4·20	13·14	Weymouth, 12 months	4
31	Royal Garrison Artillery...	139	33	—	2	2·59	237·4	—	14·39	18·63	6·80	28·65	Plymouth, 10 months; Salisbury Plain, 2 months.	4
32	Royal Garrison Artillery...	97	30	—	1	2·11	371·1	—	10·31	21·75	7·94	21·39	Portsmouth, 12 months	4
33	Royal Garrison Artillery...	154	54	—	3	2·57	350·6	—	19·48	16·69	6·09	17·37	Golden Hill 12 months	4

34	Royal Garrison Artillery...	129	46	—	—	1·85	356·6	—	—	14·34	5·23	14·68	Sandown, 12 months	4
35	Royal Garrison Artillery	114	30	—	1	2·35	263·2	—	8·77	20·61	7·52	28·59	Aldershot, 4 months; Portsmouth, 8 months.	5
36	Royal Garrison Artillery...	130	43	—	3	3·23	330·8	—	23·08	24·85	9·07	27·41	Plymouth, 12 months	4
37	Royal Garrison Artillery...	136	81	—	4	3·79	595·6	—	29·41	27·87	10·17	17·08	Portsmouth, 12 months	4
38	Royal Garrison Artillery...	134	28	—	2	2·35	209·0	—	14·33	17·54	6·40	30·63	Plymouth, 12 months	4
39	Royal Garrison Artillery...	164	47	—	2	4·29	286·6	—	12·20	26·16	9·55	33·31	Plymouth, 12 months	3
40	Royal Garrison Artillery..	154	33	—	—	1·12	214·3	—	—	7·27	2·65	12·38	Dover, 12 months	3
41	Royal Garrison Artillery...	158	69	—	2	4·79	430·4	—	12·66	30·32	11·07	25·71	Plymouth, 12 months	3
42	Royal Garrison Artillery...	125	62	—	2	3·83	496·0	—	16·00	30·64	11·18	22·55	Portsmouth, 12 months	2
43	Royal Garrison Artillery...	136	47	1	1	2·06	345·6	7·35	7·35	15·15	5·53	15·99	Queenstown, 12 months	2
44	Royal Garrison Artillery...	126	28	—	2	1·13	222·2	—	15·87	8·97	3·27	14·73	Pembroke Dock, 12 months	3
45	Royal Garrison Artillery...	141	54	—	5	4·90	383·0	—	35·46	34·75	12·68	33·12	Plymouth, 12 months	2
46	Royal Garrison Artillery...	117	53	1	4	1·66	453·0	8·55	34·19	14·19	5·18	11·43	Dover, 12 months	1
47	Royal Garrison Artillery...	86	30	1	—	4·83	348·8	11·63	—	56·16	20·50	58·76	Dover, 12 months	2
48	Royal Garrison Artillery...	129	53	—	2	3·55	410·9	—	15·50	27·52	10·04	24·45	Plymouth, 12 months	2
49	Royal Garrison Artillery...	117	37	—	—	1·62	316·2	—	—	13·85	5·05	15·98	Queenstown, 12 months	1
67	Royal Garrison Artillery...	161	86	1	3	5·22	534·2	6·21	18·63	32·42	11·83	22·15	Portsmouth, 12 months	1
105	Royal Garrison Artillery	113	55	—	—	1·77	486·7	—	—	15·66	5·72	11·74	Falmouth, 12 months	4
107	Royal Garrison Artillery...	132	22	—	—	1·00	166·7	—	—	7·58	2·77	16·59	Falmouth, 12 months	3
108	Royal Garrison Artillery...	114	43	—	1	2·94	377·2	—	8·77	25·81	9·42	24·95	Aldershot, 4 months; Portsmouth, 8 months.	—
	Riding Establishment	164	44	1	3	2·82	268·3	6·10	18·29	17·20	6·28	23·39	Woolwich, 12 months	—
	District Establishment	340	55	2	3	4·48	161·8	5·88	8·82	13·18	4·81	29·73	Various	—
	School of Gunnery	449	44	2	—	5·00	98·0	4·45	—	11·14	4·07	41·48	Shoeburyness...	—
	Regimental District Staff	434	238	1	11	8·31	448·3	2·16	—	17·91	6·53	14·58	Various	—

Battery, Company, or Battalion.	Corps.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years at Home since last return from Service Abroad.
							Admitted.	Died.	Invalided.	Average Constantly Sick.				
	ROYAL ARTILLERY—*cont.*										days.	days.		
126th	Royal Field Artillery	127	71	—	4	4·61	559·1	—	31·50	35·51	12·96	23·18	Woolwich, 12 months	6
127th	Royal Field Artillery	112	62	—	—	4·28	553·6	—	—	38·21	13·95	25·19	Woolwich, 12 months	6
128th	Royal Field Artillery	115	82	—	3	3·87	713·0	—	26·09	33·65	12·28	17·22	Newcastle-on-Tyne, 12 months	6
129th	Royal Field Artillery	109	59	1	1	3·26	541·3	9·17	9·17	29·91	10·92	20·17	Newcastle-on-Tyne, 12 months	6
130th	Royal Field Artillery	110	104	—	3	4·56	945·5	—	27·27	41·45	15·13	16·00	Newcastle-on-Tyne, 12 months	6
131st	Royal Field Artillery	130	55	2	1	3·19	423·1	15·38	7·69	24·54	8·96	21·17	Fermoy, 12 months	6
132nd	Royal Field Artillery	114	70	1	4	3·25	614·0	8·77	35·09	28·51	10·41	16·94	Cork, 12 months	6
133rd	Royal Field Artillery	119	55	—	3	3·19	462·2	—	25·21	26·81	9·79	21·17	Fermoy, 12 months	6
134th	Royal Field Artillery	133	25	1	1	1·72	188·0	7·52	7·52	12·93	4·72	25·11	Dundalk, 12 months...	6
135th	Royal Field Artillery	130	34	1	1	1·75	261·5	7·69	7·69	13·46	4·91	18·79	Belturbet, 12 months	6
136th	Royal Field Artillery	136	47	—	1	2·72	345·6	—	7·35	20·00	7·30	21·12	Kildare, 12 months	6
137th	Royal Field Artillery	127	45	—	3	1·84	354·3	—	23·62	14·49	5·29	14·92	Sheffield, 6 months; Kildare, 6 months...	6
138th	Royal Field Artillery	129	51	—	2	2·69	395·3	—	15·50	20·85	7·61	19·25	Sheffield, 6 months; Kildare, 6 months...	6
139th	Royal Field Artillery	123	60	—	—	2·91	487·8	—	—	23·66	8·64	17·70	Sheffield, 6 months; Kildare, 6 months...	6
140th	Royal Field Artillery	125	42	—	1	1·78	336·0	—	8·00	14·24	5·20	15·47	Cahir, 12 months	6
141st	Royal Field Artillery	115	38	—	—	1·63	330·4	—	—	14·17	5·17	15·65	Cahir, 12 months	6

Depôt.	Coldstream Guards	285	336	2	8	13·36	1,178·9	7·02	28·07	46·66	17·11	14·51	Caterham	—
1st	Scots Guards	645	321	—	9	22·37	497·7	—	13·96	34·68	12·66	25·43	Aldershot, 9 months; London, 3 months	4
2nd	Scots Guards	615	394	—	5	20·61	640·7	—	8·13	49·77	18·17	28·36	London, 7 months; Aldershot, 5 months	4
3rd	Scots Guards	415	368	1	22	29·44	886·7	2·41	53·01	70·94	25·89	29·20	Aldershot, 1 month; London, 8 months. Disbanded 30.9.06.	6
Depôt.	Scots Guards	208	174	—	7	8·02	836·7	—	33·65	38·56	14·07	16·92	Caterham	—
1st	Irish Guards	870	423	—	11	20·14	486·2	—	12·64	34·64	12·64	26·01	Aldershot, 9 months; London, 3 months	—
Depôt.	Irish Guards	125	159	—	3	7·06	1,272·0	—	24·00	56·64	20·67	16·25	Caterham	—
	Other Foot Guards	11	48	—	9	10·58	4,363·6	—	818·18	961·52	351·06	80·45	Various	—
	On Manœuvres	52	8	—	—	·38	153·8	—	—	7·31	2·67	17·34	Manœuvres	—
	Total Foot Guards	6,897	4,694	12	143	320·43	680·6	1·74	20·73	46·46	16·96	24·91		
	INFANTRY.													
1st	Royal Scots	486	169	1	4	9·44	347·7	2·06	8·23	19·42	7·09	20·38	Shorncliffe, 12 months	3
2nd	Royal West Surrey Regiment	649	368	2	11	16·59	567·0	3·08	16·95	25·56	9·33	16·45	Shorncliffe, 8½ months; Colchester, 3½ months.	2
1st	East Kent Regiment	520	134	2	11	8·19	257·7	3·85	21·15	15·75	5·75	22·30	Dover, 12 months	2
2nd	Royal Lancaster Regiment	509	413	—	17	21·82	811·4	—	33·40	42·87	15·65	19·28	Colchester, 12 months	3
2nd	Northumberland Fusiliers	472	281	2	25	16·13	595·3	4·24	52·97	34·17	12·47	20·95	Aldershot, 12 months	3
4th	Northumberland Fusiliers	395	220	—	7	8·83	557·0	—	17·72	22·35	8·16	14·65	Limerick, 11 months. Disbanded 12.11.06	—
2nd	Royal Warwick Regiment	539	101	1	5	4·86	187·4	1·86	9·28	9·02	3·29	17·56	Bordon, 3 months; Portland, 9 months...	6
4th	Royal Warwick Regiment	380	176	2	6	10·78	463·2	5·26	15·79	28·37	10·35	22·36	Curragh, 10 months. Disbanded November, 1906.	—
1st	Royal Fusiliers	549	215	1	2	7·24	391·6	1·82	3·64	13·19	4·81	12·29	Aldershot, 3 months; Portland, 9 months.	2
4th	Royal Fusiliers	535	322	1	6	19·34	601·9	1·87	11·21	36·15	13·19	21·92	Dublin, 12 months	—
2nd	Liverpool Regiment	486	196	2	11	6·49	403·3	4·12	22·63	13·25	4·87	12·08	Woking, 12 months	14
Details 2nd	Norfolk Regiment...	103	45	1	2	2·70	436·9	9·71	19·42	26·21	9·57	21·90	Colchester, 10½ months; Warley, 1½ months.	—

Battery, Company, or Battalion.	Corps.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years at Home since last return from Service Abroad.
							Admitted.	Died.	Invalided.	Average Constantly Sick.				
	INFANTRY—*cont.*										days.	days.		
2nd	Lincoln Regiment...	320	114	2	12	7·10	356·3	6·25	37·50	22·19	8·10	22·73	Tidworth, 12 months	2
2nd	Devonshire Regiment	720	395	3	8	25·54	548·6	4·17	11·11	35·47	12·95	23·60	Devonport, 12 months	3
1st	Suffolk Regiment	551	319	2	15	19·06	578·9	3·63	27·22	34·59	12·62	21·80	Woolwich, 12 months	4
2nd	Somersetshire Light Infantry	729	315	1	13	18·97	432·1	1·37	17·83	26·02	9·50	21·98	Devonport, 12 months	3
2nd	West Yorkshire Regiment	521	290	2	2	19·24	556·6	3·84	3·84	36·93	13·48	24·21	Aldershot, 2 months; Holywood, 10 months.	2
1st	East Yorkshire Regiment	404	155	1	5	11·27	383·7	2·48	12·38	27·90	10·18	26·53	Shorncliffe, 10 months. From India, 19.2.06.	—
2nd	Bedfordshire Regiment	878	136	2	7	7·18	154·9	2·28	7·97	8·18	2·98	19·26	Bordon, 9 months; Tidworth, 3 months...	3
1st	Leicestershire Regiment	103	32	—	—	1·55	310·7	—	—	15·05	5·49	17·68	Shorncliffe, 2 months. From India, 9.11.06.	—
2nd	Leicestershire Regiment	474	180	3	7	9·74	379·7	6·33	14·77	20·55	7·50	19·75	Colchester, 8½ months. To India, 21.8.06.	4
2nd	Royal Irish Regiment	575	187	—	18	11·27	325·2	—	31·30	19·60	7·15	21·99	Fermoy, 8 months; Buttevant, 4 months	3
1st	Yorkshire Regiment	534	230	—	8	12·77	430·7	—	14·98	23·91	8·73	20·26	Aldershot, 12 months	4
2nd	Lancashire Fusiliers	511	165	—	6	10·31	322·9	—	11·74	20·18	7·36	22·80	Fermoy, 12 months	4
4th	Lancashire Fusiliers	371	154	—	1	8·29	415·1	—	2·70	22·35	8·16	19·65	Tipperary, 11 months. Disbanded, 15.11.06.	—
2nd	Royal Scots Fusiliers	490	164	—	17	8·27	334·7	—	34·69	16·88	6·16	18·40	Tidworth, 12 months	3
1st	Cheshire Regiment	463	186	2	7	8·55	401·7	4·32	15·12	18·47	6·74	16·77	Lichfield, 12 months. Dets. at Chester and Fleetwood.	2
1st	Royal Welsh Fusiliers	616	426	1	25	22·66	691·6	1·62	40·58	36·79	13·43	19·41	Aldershot, 12 months	3

2nd	South Wales Borderers	453	200	1	11	4·81	441·5	2·21	24·28	10·62	3·88	8·78	Aldershot, 3 months; Tidworth, 9 months	2
1st	King's Own Scottish Borderers... ...	508	358	4	18	20·10	704·7	7·87	35·43	39·57	14·44	20·49	Colchester, 10½ months. To Egypt, 21.11.06.	3
2nd	King's Own Scottish Borderers... ...	16	12	—	—	·23	750·0	—	—	14·37	5·25	6·99	Maryhill. From Aden, 29.12.06	—
2nd	Scottish Rifles	611	346	2	3	15·23	566·3	3·27	4·91	24·93	9·10	16·06	Maryhill and Aberdeen, 11 months; Aldershot, 1 month.	2
1st	Royal Inniskilling Fusiliers	589	311	—	13	20·92	528·0	—	22·07	35·52	12·96	24·55	Belfast, 12 months	3
2nd	Gloucestershire Regiment	422	315	2	7	17·58	746·4	4·74	16·59	41·63	15·20	20·37	Aldershot, 1 month; Warley, 11 months	2
1st	Worcestershire Regiment	516	240	3	6	7·96	465·1	5·81	11·63	15·43	5·63	12·10	Templemore, 11 months; Dublin, 1 month.	3
3rd	Worcestershire Regiment	613	348	1	14	16·33	567·7	1·63	22·84	26·64	9·72	17·12	Aldershot, 12 months	—
1st	East Lancashire Regiment	492	304	2	8	17·36	617·9	4·07	16·26	35·69	13·03	21·08	Curragh, 12 months...	4
1st	East Surrey Regiment	651	213	2	13	9·74	327·2	3·07	19·97	14·96	5·46	16·69	Jersey, 12 months	3
1st	Duke of Cornwall's Light Infantry ...	512	255	—	5	13·51	498·0	—	9·77	26·39	9·63	19·34	Devonport, 9 months	—
2nd	West Riding Regiment	540	232	5	13	11·73	429·6	9·26	24·07	21·72	7·93	18·45	Lichfield, 12 months...	1
1st	Border Regiment	265	103	1	6	6·09	388·7	3·77	22·64	22·98	8·39	21·58	Bordon, 8 months. To Gibraltar, 1.9.06.	4
1st	Hampshire Regiment	697	233	1	6	12·71	334·3	1·43	8·61	18·24	6·66	19·91	Bordon, 3 months; Portsmouth, 9 months	2
1st	South Staffordshire Regiment	549	253	2	9	14·37	460·8	3·64	16·39	26·17	9·55	20·73	Bordon, 1 month; Curragh, 11 months...	2
1st	Dorsetshire Regiment	103	43	1	—	2·55	417·5	9·71	—	24·76	9·03	21·64	Gosport, 2 months. From India, 7.11.06.	—
2nd	Dorsetshire Regiment	450	241	2	10	13·36	535·6	4·44	22·22	30·13	11·00	20·53	Colchester, 9 months. To India, 3.10.06.	4
2nd	South Lancashire Regiment	529	131	2	6	6·85	247·5	3·78	11·34	12·05	4·73	19·08	Blackdown, 12 months	3
1st	Welsh Regiment	428	162	1	13	7·23	378·5	2·34	30·37	16·89	6·16	16·29	Bordon, 5 months; Gravesend, 7 months	2
1st	Royal Highlanders	669	136	3	7	6·63	203·3	4·48	10·46	9·91	3·62	17·79	Fort George, 11 months; Curragh, 1 month.	4
2nd	Oxfordshire Light Infantry	346	218	1	13	8·64	630·1	2·89	37·37	24·97	9·11	14·46	Tidworth, 10 months; Chatham, 2 months.	3
2nd	Nottinghamshire and Derbyshire Regiment.	723	324	2	12	19·30	448·1	2·77	16·60	26·37	9·84	21·96	Aldershot, 11 months; Kinsale, 1 month	4
1st	Loyal North Lancashire Regiment ...	436	157	1	5	5·64	360·1	2·29	11·47	12·94	4·72	13·11	Kinsale, 11 months; Curragh, 1 month...	4
2nd	Northamptonshire Regiment	633	183	2	8	10·47	289·1	3·16	12·64	16·54	6·04	20·88	Bordon, 11 months; Colchester, 1 month	2

Battery, Company, or Battalion.	Corps.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years at Home since last return from Service Abroad.
							Admitted.	Died.	Invalided.	Average Constantly Sick.				
	INFANTRY—*cont.*										days.	days.		
1st	Royal Berkshire Regiment	746	543	—	12	30·10	727·9	—	16·09	40·35	14·73	20·23	Dublin, 12 months	4
1st	Royal West Kent Regiment	7	7	—	—	2·07	1000·0	—	—	10·00	3·65	3·65	Dover, 5 days. From Malta, 27.12.06 ...	—
2nd	Yorkshire Light Infantry	535	257	—	9	13·40	480·4	—	16·82	25·05	9·14	19·03	Sheffield and York, 12 months	1
1st	Shropshire Light Infantry	492	153	1	5	8·69	311·0	2·03	10·16	17·66	6·44	20·73	Bordon, 12 months	3
2nd	Middlesex Regiment	620	407	1	9	22·50	656·5	1·61	14·52	36·29	13·24	20·18	Bordon, 3 months; Portsmouth, 9 months	3
4th	Middlesex Regiment	639	266	1	7	10·59	419·4	1·56	10·95	16·57	6·05	14·42	Londonderry, 12 months	—
3rd	King's Royal Rifle Corps	641	267	2	14	16·00	416·5	3·12	21·84	24·96	9·11	21·87	Aldershot, 12 months	1
4th	King's Royal Rifle Corps	458	372	—	10	18·97	812·2	—	21·83	41·42	15·12	18·61	Bordon, 3 months; Gosport, 7 months; Colchester, 2 months.	2
2nd	Wiltshire Regiment	592	180	—	10	9·26	304·1	—	16·89	15·64	5·71	18·77	Pembroke Dock, 12 months	3
2nd	Manchester Regiment	484	257	5	7	10·09	592·2	11·62	16·13	23·25	8·49	14·33	Guernsey and Alderney, 12 months ...	4
3rd	Manchester Regiment	10	4	—	—	3·14	400·0	—	—	14·00	5·11	12·77	Guernsey. From South Africa, 20.11.06. Disbanded, 30.12.06.	—
4th	Manchester Regiment	332	213	—	18	13·97	641·6	—	54·22	42·08	15·36	23·94	Aldershot, 10 months. Disbanded ...	—
1st	North Staffordshire Regiment	479	272	1	7	14·18	567·8	2·09	14·61	29·60	10·80	19·03	Aldershot, 12 months	3
2nd	York and Lancaster Regiment... ...	523	212	2	10	12·36	405·4	3·82	19·12	23·63	8·62	21·28	York, 12 months	4
2nd	Durham Light Infantry...	487	248	2	11	12·42	509·2	4·11	22·59	25·60	9·31	18·28	Cork, 12 months	4
2nd	Highland Light Infantry	566	306	4	21	21·19	522·2	6·83	35·84	36·16	13·20	25·28	Edinburgh, 11 months; Fort George, 1 month.	6

2nd	Seaforth Highlanders	583	227	3	13	11·53	389·4	5·15	22·30	19·78	7·22	16·54	Edinburgh, 1 month; Aldershot, 11 months.	3
1st	Gordon Highlanders	519	346	1	11	15·87	666·7	1·93	21·19	30·58	11·16	16·74	Cork, 12 months	4
1st	Cameron Highlanders	528	349	1	13	19·77	661·0	1·89	22·73	37·44	13·66	20·67	Dublin, 12 months	4
2nd	Royal Irish Rifles...	553	252	—	4	16·74	455·7	—	7·23	30·27	11·05	24·24	Dublin, 11 months; Aldershot, 1 month	3
1st	Royal Irish Fusiliers	563	290	1	12	19·65	515·1	1·78	21·31	34·90	12·74	24·72	Dublin, 12 months	6
1st	Connaught Rangers	519	202	2	5	7·74	389·2	3·85	9·63	14·91	5·44	13·98	Mullingar, 12 months	3
1st	Argyll and Sutherland Highlanders ...	426	351	2	18	22·94	823·9	4·69	42·25	53·85	19·65	23·85	Chatham, 12 months	3
1st	Leinster Regiment	541	118	4	6	6·13	218·1	7·39	11·09	11·33	4·13	18·96	Blackdown, 12 months	4
2nd	Royal Dublin Fusiliers	541	204	1	9	11·63	377·1	1·85	16·64	21·50	7·85	20·60	Buttevant, 8 months; Fermoy, 4 months	3
1st	Rifle Brigade	53	14	1	—	1·20	264·2	18·87	—	22·64	8·26	31·28	Holywood, 2 months. From Malta, 26.10.06.	—
3rd	Rifle Brigade	844	448	4	13	24·45	530·8	4·74	15·40	28·97	10·57	19·92	Devonport, 12 months	—
	Mounted Infantry...	1,327	409	—	3	16·27	308·2	—	2·26	12·26	4·47	14·52	Longmoor and Bulford, 12 months ...	—
	Provisional Battalion	869	436	1	27	28·35	501·7	1·15	31·07	32·63	11·91	23·73	Tidworth, Dover and Bordon, 12 months	—
	Other Infantry	1,261	656	4	91	94·51	520·2	3·17	72·16	74·95	27·36	52·58	Various	—
	On Manœuvres	783	132	1	—	3·09	168·6	1·28	—	3·95	1·44	8·54	Manœuvres	—
	Total Infantry Regiments ...	43,125	19,806	120	838	1117·92	459·3	2·78	19·43	25·92	9·46	20·60		
	REGIMENTAL DEPÔTS.													
Depôt.	The Royal Scots	167	57	4	2	3·58	341·3	23·95	11·98	21·44	7·82	22·92	Glencorse	Since formation.
,,	Royal West Surrey Regiment	141	78	1	2	3·12	553·2	7·09	14·18	22·13	8·08	14·60	Guildford	,,
,,	East Kent Regiment	145	50	—	—	2·17	344·8	—	—	14·97	5·46	15·84	Canterbury	,,
,,	Royal Lancaster Regiment	193	37	—	2	1·89	191·7	—	19·36	9·79	3·57	18·64	Lancaster	,,
,,	Northumberland Fusiliers	155	83	1	3	3·91	535·5	6·45	19·35	25·23	9·21	17·19	Newcastle-on-Tyne...	,,

Battery, Company, or Battalion.	Corps.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years at Home since last return from Service Abroad.
							Admitted.	Died.	Invalided.	Average Constantly Sick.				
	REGIMENTAL DEPÔTS—*cont.*										days.	days.		
Depôt.	Royal Warwickshire Regiment... ...	189	81	1	3	2·58	444·4	5·29	15·87	13·65	4·98	11·21	Warwick	Since formation.
,,	Royal Fusiliers	282	129	2	5	6·62	457·4	7·09	17·73	23·48	8·57	18·73	Hounslow	,,
,,	Liverpool Regiment	173	51	—	—	2·14	294·8	—	—	12·37	4·51	15·31	Warrington	,,
,,	Norfolk Regiment...	163	65	—	2	2·02	398·8	—	12·27	12·39	4·52	11·34	Norwich	,,
,,	Lincolnshire Regiment	129	47	2	1	1·75	364·3	15·50	7·75	13·57	4·95	13·59	Lincoln	,,
,,	Devonshire Regiment	153	63	2	—	2·15	411·8	13·07	—	14·05	5·13	12·45	Exeter	,,
,,	Suffolk Regiment	159	54	1	—	1·91	339·6	6·29	—	12·01	4·38	12·91	Bury St. Edmunds	,,
,,	Somersetshire Light Infantry	146	33	—	4	1·85	226·0	—	27·40	12·67	4·62	20·46	Taunton	,,
,,	West Yorkshire Regiment	121	67	—	4	3·20	553·7	—	33·06	26·45	9·65	17·43	York	,,
,,	East Yorkshire Regiment	119	57	—	1	2·00	479·0	—	8·40	16·81	6·13	12·81	Beverley	,,
,,	Bedfordshire Regiment	142	44	—	—	1·53	309·9	—	—	10·77	3·93	12·69	Bedford	,,
,,	Leicestershire Regiment	143	65	—	3	3·61	454·5	—	20·98	25·24	9·21	20·27	Leicester	,,
,,	Royal Irish Regiment	141	81	1	4	3·20	574·5	7·09	28·37	22·70	8·28	14·42	Clonmel	,,
,,	Yorkshire Regiment	207	33	1	4	1·77	159·4	4·83	19·32	8·55	3·12	19·57	Richmond, Yorks	,,
,,	Lancashire Fusiliers	257	67	1	3	3·15	260·7	3·89	11·67	12·26	4·47	17·16	Bury	,,
,,	Royal Scots Fusiliers	155	90	—	1	2·99	580·6	—	6·45	19·29	7·04	12·12	Ayr	,,

,,	Cheshire Regiment	150	40	—	3	1·17	266·7	—	20·00	7·80	2·85	10·68	Chester	,,
,,	Royal Welsh Fusiliers	182	62	1	2	2·61	340·7	5·49	10·99	14·34	5·23	15·36	Wrexham	,,
,,	South Wales Borderers	194	55	1	1	2·02	283·5	5·15	5·15	10·41	3·80	13·40	Brecon...	,,
,,	King's Own Scottish Borderers	135	64	2	1	2·03	474·1	14·81	7·41	15·04	5·49	11·57	Berwick-on-Tweed	,,
,,	Scottish Rifles	209	33	3	1	1·69	157·9	14·35	4·78	8·09	2·95	18·69	Hamilton	,,
,,	Royal Inniskilling Fusiliers	204	40	—	—	1·26	196·1	—	—	6·18	2·25	11·50	Omagh...	,,
,,	Gloucestershire Regiment	167	52	2	—	1·33	311·4	11·98	—	10·96	4·00	12·84	Bristol	,,
,,	Worcestershire Regiment	185	61	—	1	2·55	329·7	—	5·41	13·78	5·03	15·26	Worcester	,,
,,	East Lancashire Regiment	170	128	—	3	3·96	752·9	—	17·65	23·29	8·50	11·29	Preston	,,
,,	East Surrey Regiment	217	70	2	2	2·98	322·6	9·22	9·22	13·73	5·01	15·54	Kingston-on-Thames	,,
,,	Duke of Cornwall's Light Infantry ...	175	98	1	—	2·73	560·0	5·71	—	15·60	5·69	10·16	Bodmin	,,
,,	West Riding Regiment	107	96	—	1	4·21	897·2	—	9·35	39·35	14·36	16·00	Halifax, Yorks	,,
,,	Border Regiment	165	97	3	2	3·84	587·9	18·18	12·12	23·27	8·49	14·44	Carlisle	,,
,,	Sussex Regiment	164	64	2	2	2·22	390·2	12·20	12·20	13·54	4·94	12·66	Chichester	,,
,,	Hampshire Regiment	141	20	—	2	·73	141·8	—	14·18	5·18	1·89	13·32	Winchester	,,
,,	South Staffordshire Regiment	178	74	2	2	2·24	415·7	11·24	11·24	12·58	4·59	11·05	Lichfield	,,
,,	Dorsetshire Regiment	189	78	—	—	2·32	412·7	—	—	12·28	4·48	10·85	Dorchester	,,
,,	South Lancashire Regiment	136	62	—	1	1·85	455·9	—	7·35	13·60	4·96	10·89	Warrington	,,
,,	Welsh Regiment	149	55	—	—	2·90	369·1	—	—	19·46	7·10	19·24	Cardiff	,,
,,	Royal Highlanders	155	15	—	2	1·24	96·8	—	12·90	8·00	2·92	30·17	Perth	,,
,,	Oxfordshire Light Infantry	145	120	—	1	4·28	827·6	—	6·90	29·52	10·77	13·01	Oxford	,,
,,	Essex Regiment	214	107	2	—	3·41	500·0	9·35	—	15·93	5·81	11·63	Warley...	,,
,,	Nottinghamshire and Derbyshire Regiment	160	74	—	2	2·29	462·5	—	12·50	14·31	5·22	11·29	Derby	,,
,,	Loyal North Lancashire Regiment ...	140	110	2	6	4·18	785·7	14·29	42·86	29·86	10·90	13·87	Preston	,,

Battery, Company, or Battalion.	Corps.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years at Home since last return from Service Abroad.
							Admitted.	Died.	Invalided.	Average Constantly Sick.				
	INFANTRY—*cont.*										days.	days.		
1st	Royal Berkshire Regiment	746	543	—	12	30·10	727·9	—	16·09	40·35	14·73	20·23	Dublin, 12 months	4
1st	Royal West Kent Regiment	7	7	—	—	2·07	1000·0	—	—	10·00	3·65	3·65	Dover, 5 days. From Malta, 27.12.06 ...	—
2nd	Yorkshire Light Infantry	535	257	—	9	13·40	480·4	—	16·82	25·05	9·14	19·03	Sheffield and York, 12 months	1
1st	Shropshire Light Infantry	492	153	1	5	8·69	311·0	2·03	10·16	17·66	6·44	20·73	Bordon, 12 months	3
2nd	Middlesex Regiment	620	407	1	9	22·50	656·5	1·61	14·52	36·29	13·24	20·18	Bordon, 3 months; Portsmouth, 9 months	3
4th	Middlesex Regiment	639	268	1	7	10·59	419·4	1·56	10·95	16·57	6·05	14·42	Londonderry, 12 months	—
3rd	King's Royal Rifle Corps	641	267	2	14	16·00	416·5	3·12	21·84	24·96	9·11	21·87	Aldershot, 12 months	1
4th	King's Royal Rifle Corps	458	372	—	10	18·97	812·2	—	21·83	41·42	15·12	18·61	Bordon, 3 months; Gosport, 7 months; Colchester, 2 months.	2
2nd	Wiltshire Regiment	592	190	—	10	9·26	304·1	—	16·89	15·64	5·71	18·77	Pembroke Dock, 12 months	3
2nd	Manchester Regiment	434	257	5	7	10·09	592·2	11·52	16·13	23·25	8·49	14·33	Guernsey and Alderney, 12 months ...	4
3rd	Manchester Regiment	10	4	—	—	3·14	400·0	—	—	14·00	5·11	12·77	Guernsey. From South Africa, 20.11.06. Disbanded, 30.12.06.	—
4th	Manchester Regiment	332	213	—	18	13·97	641·6	—	54·22	42·08	15·36	23·94	Aldershot, 10 months. Disbanded ...	—
1st	North Staffordshire Regiment	479	272	1	7	14·18	567·8	2·09	14·61	29·60	10·80	19·03	Aldershot, 12 months	3
2nd	York and Lancaster Regiment... ...	523	212	2	10	12·36	405·4	3·82	19·12	23·63	8·62	21·28	York, 12 months	4
2nd	Durham Light Infantry...	487	248	2	11	12·42	509·2	4·11	22·59	25·50	9·31	18·28	Cork, 12 months	4
2nd	Highland Light Infantry	586	306	4	21	21·19	522·2	6·83	35·84	36·16	13·20	25·28	Edinburgh, 11 months; Fort George, 1 month.	6

2nd	Seaforth Highlanders	563	227	3	13	11·53	389·4	5·15	22·30	19·78	7·22	16·84	Edinburgh, 1 month; Aldershot, 11 months.	3
1st	Gordon Highlanders	519	345	1	11	15·87	666·7	1·93	21·19	30·58	11·16	16·74	Cork, 12 months	4
1st	Cameron Highlanders	528	349	1	12	19·77	661·0	1·89	22·73	37·44	13·66	20·67	Dublin, 12 months	4
2nd	Royal Irish Rifles	553	252	—	4	16·74	455·7	—	7·23	30·27	11·05	24·24	Dublin, 11 months; Aldershot, 1 month	3
1st	Royal Irish Fusiliers	563	290	1	12	19·65	515·1	1·73	21·31	34·90	12·74	24·72	Dublin, 12 months	6
1st	Connaught Rangers	519	202	2	5	7·74	389·2	3·85	9·63	14·91	5·44	13·98	Mullingar, 12 months	8
1st	Argyll and Sutherland Highlanders ...	426	351	2	18	22·94	823·9	4·69	42·25	53·85	19·65	23·85	Chatham, 12 months	3
1st	Leinster Regiment	541	118	4	6	6·13	218·1	7·39	11·09	11·33	4·13	18·96	Blackdown, 12 months	4
2nd	Royal Dublin Fusiliers	541	204	1	9	11·63	377·1	1·85	16·64	21·50	7·85	20·80	Buttevant, 8 months; Fermoy, 4 months	3
1st	Rifle Brigade	53	14	1	—	1·20	264·2	18·87	—	22·64	8·26	31·28	Holywood, 2 months. From Malta, 26.10.06.	—
3rd	Rifle Brigade	844	448	4	13	24·45	530·8	4·74	15·40	28·97	10·57	19·92	Devonport, 12 months	—
	Mounted Infantry...	1,327	409	—	3	16·27	308·2	—	2·26	12·26	4·47	14·52	Longmoor and Bulford, 12 months ...	—
	Provisional Battalion	869	436	1	27	28·35	501·7	1·15	31·07	32·63	11·91	23·73	Tidworth, Dover and Bordon, 12 months	—
	Other Infantry	1,261	656	4	91	94·51	520·2	3·17	72·16	74·95	27·36	52·58	Various	—
	On Manœuvres	783	132	1	—	3·09	168·6	1·28	—	3·95	1·44	8·54	Manœuvres	—
	Total Infantry Regiments ...	43,125	19,806	120	838	1117·92	459·3	2·78	19·43	25·92	9·46	20·60		
	REGIMENTAL DEPÔTS.													
Depôt.	The Royal Scots	167	57	4	2	3·58	341·3	23·95	11·98	21·44	7·82	22·92	Glencorse	Since formation.
,,	Royal West Surrey Regiment	141	78	1	2	3·12	553·2	7·09	14·18	22·13	8·08	14·60	Guildford	,,
,,	East Kent Regiment	145	50	—	—	2·17	344·8	—	—	14·97	5·46	15·84	Canterbury	,,
,,	Royal Lancaster Regiment	193	37	—	2	1·89	191·7	—	10·36	9·79	3·57	18·64	Lancaster	,,
,,	Northumberland Fusiliers	155	83	1	3	3·91	535·5	6·45	19·35	25·23	9·21	17·19	Newcastle-on-Tyne...	,,

Battery, Company, or Battalion.	Corps.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years at Home since last return from Service Abroad.
							Admitted.	Died.	Invalided.	Average Constantly Sick.				
	REGIMENTAL DEPÔTS—*cont.*										days.	days.		
Depôt.	Royal Warwickshire Regiment... ...	189	84	1	3	2·58	444·4	5·29	15·87	13·65	4·98	11·21	Warwick	Since formation.
,,	Royal Fusiliers	282	129	2	5	6·62	457·4	7·09	17·73	23·48	8·57	18·73	Hounslow	,,
,,	Liverpool Regiment	173	51	—	—	2·14	294·8	—	—	12·37	4·51	15·31	Warrington	,,
,,	Norfolk Regiment...	163	65	—	2	2·02	398·8	—	12·27	12·39	4·52	11·34	Norwich	,,
,,	Lincolnshire Regiment	129	47	2	1	1·75	364·3	15·50	7·75	13·57	4·95	13·59	Lincoln	,,
,,	Devonshire Regiment	153	63	2	—	2·15	411·8	13·07	—	14·05	5·13	12·45	Exeter	,,
,,	Suffolk Regiment	159	54	1	—	1·91	339·6	6·29	—	12·01	4·38	12·91	Bury St. Edmunds	,,
,,	Somersetshire Light Infantry	146	33	—	4	1·85	226·0	—	27·40	12·67	4·62	20·46	Taunton	,,
,,	West Yorkshire Regiment	121	67	—	4	3·20	553·7	—	33·06	26·45	9·65	17·43	York	,,
,,	East Yorkshire Regiment	119	57	—	1	2·00	479·0	—	8·40	16·81	6·13	12·81	Beverley	,,
,,	Bedfordshire Regiment	142	44	—	—	1·53	309·9	—	—	10·77	3·93	12·69	Bedford	,,
,,	Leicestershire Regiment	143	65	—	3	3·61	454·5	—	20·98	25·24	9·21	20·27	Leicester	,,
,,	Royal Irish Regiment	141	81	1	4	3·20	574·5	7·09	28·37	22·70	8·28	14·42	Clonmel	,,
,,	Yorkshire Regiment	207	33	1	4	1·77	159·4	4·83	19·32	8·55	3·12	19·57	Richmond, Yorks	,,
,,	Lancashire Fusiliers	257	67	1	3	3·15	260·7	3·89	11·67	12·26	4·47	17·16	Bury	,,
,,	Royal Scots Fusiliers	155	90	—	1	2·99	580·6	—	6·45	19·29	7·04	12·12	Ayr	,,

"	Cheshire Regiment	150	40	—	3	1·17	266·7	—	20·00	7·80	2·85	10·68	Chester	"
"	Royal Welsh Fusiliers	182	62	1	2	2·61	340·7	5·49	10·99	14·34	5·23	15·36	Wrexham	"
"	South Wales Borderers	194	55	1	1	2·02	283·5	5·15	5·15	10·41	3·80	13·40	Brecon	"
"	King's Own Scottish Borderers	135	64	2	1	2·03	474·1	14·81	7·41	15·04	5·49	11·57	Berwick-on-Tweed	"
"	Scottish Rifles	209	33	3	1	1·69	157·9	14·35	4·78	8·09	2·95	18·69	Hamilton	"
"	Royal Inniskilling Fusiliers	204	40	—	—	1·26	196·1	—	—	6·18	2·25	11·50	Omagh	"
"	Gloucestershire Regiment	167	52	2	—	1·93	311·4	11·98	—	10·96	4·00	12·84	Bristol	"
"	Worcestershire Regiment	185	61	—	1	2·55	329·7	—	5·41	13·78	5·03	16·26	Worcester	"
"	East Lancashire Regiment	170	128	—	3	3·96	752·9	—	17·65	23·29	8·50	11·29	Preston	"
"	East Surrey Regiment	217	70	2	2	2·98	322·6	9·22	9·22	13·73	5·01	15·54	Kingston-on-Thames	"
"	Duke of Cornwall's Light Infantry ...	175	98	1	—	2·73	560·0	5·71	—	15·60	5·69	10·16	Bodmin	"
"	West Riding Regiment	107	96	—	1	4·21	897·2	—	9·35	39·35	14·36	16·00	Halifax, Yorks	"
"	Border Regiment	165	97	3	2	3·84	587·9	18·18	12·12	23·27	8·49	14·44	Carlisle	"
"	Sussex Regiment	164	64	2	2	2·22	390·2	12·20	12·20	13·54	4·94	12·66	Chichester	"
"	Hampshire Regiment	141	20	—	2	·73	141·8	—	14·18	5·18	1·89	13·32	Winchester	"
"	South Staffordshire Regiment	178	74	2	2	2·24	415·7	11·24	11·24	12·58	4·59	11·05	Lichfield	"
"	Dorsetshire Regiment	189	78	—	—	2·32	412·7	—	—	12·28	4·48	10·85	Dorchester	"
"	South Lancashire Regiment	136	62	—	1	1·85	455·9	—	7·35	13·60	4·96	10·89	Warrington	"
"	Welsh Regiment	149	55	—	—	2·90	369·1	—	—	10·46	7·10	19·24	Cardiff	"
"	Royal Highlanders	155	15	—	2	1·24	96·8	—	12·90	8·00	2·92	30·17	Perth	"
"	Oxfordshire Light Infantry	145	120	—	1	4·28	827·6	—	6·90	29·52	10·77	13·01	Oxford	"
"	Essex Regiment	214	107	2	—	3·41	500·0	9·35	—	15·93	5·81	11·63	Warley	"
"	Nottinghamshire and Derbyshire Regiment	160	74	—	2	2·29	462·5	—	12·50	14·31	5·22	11·29	Derby	"
"	Loyal North Lancashire Regiment ...	140	110	2	6	4·18	785·7	14·29	42·86	29·86	10·90	13·87	Preston	"

Battery, Company, or Batln.	Corps and Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength. Admitted.	Ratio per 1,000 of Strength. Died.	Ratio per 1,000 of Strength. Invalided.	Ratio per 1,000 of Strength. Constantly Sick.	Sick Time to each Soldier.	Duration of each Case of Sickness.	Stations occupied during the Year.	Completed Years of Service in the Command.
	SOUTH AFRICA—*contd.*												days.	days.		
2nd	Yorkshire Regiment	701	476	1	—	1	11	28·59	679·0	1·43	15·69	40·78	14·89	21·92	Wynberg, 9 months. From India, 11.3.06.	—
3rd	Lancashire Fusiliers	426	149	3	—	3	2	8·75	349·8	7·04	4·69	20·54	7·50	21·43	Pretoria, 9½ months. To England, 10.06	2
1st	Duke of Cornwall's Light Infantry	118	63	1	—	1	7	4·67	533·9	8·47	59·32	39·58	14·45	27·06	Wynberg, 1½ months. To England, 12.2.06.	4
2nd	Border Regiment	711	300	2	1	3	16	17·14	421·9	4·22	22·50	24·11	8·80	20·85	Potchefstroom, 8 months! Pretoria, 3½ months: Manœuvres, ½ month.	1
2nd	Welsh Regiment	90	60	—	—	—	—	3·25	666·6	—	—	36·11	13·18	19·77	Bloemfontein, 2 months. From India, 22.10.06.	—
2nd	Loyal North Lancashire Regiment	580	188	1	—	1	7	14·11	324·1	1·72	12·07	24·33	8·88	27·29	Pretoria, 8½ months; Standerton, 3 months; Manœuvres, ½ month.	2
1st	King's Own Yorkshire Light Infantry	163	98	1	—	1	—	7·13	601·2	6·13	—	43·74	15·97	26·56	Pretoria, 3 months. From Gibraltar, 30.9.06.	—
3rd	Middlesex Regiment	544	242	2	1	3	22	15·00	444·9	5·51	40·44	27·57	10·06	22·62	Barberton and Middelburg, T., 8½ months. To China, 14.9.06.	3
3rd	Manchester Regiment	511	218	2	—	2	4	14·12	426·6	3·91	7·83	27·63	10·09	23·64	Barberton to Middelburg, C. C., 10 months. To England, 27.10.06.	4
2nd	Cameron Highlanders	743	290	—	—	—	1	15·33	390·3	—	1·35	20·63	7·53	19·30	Pretoria, 5 months; Pietermaritzburg, 6½ months; Manœuvres, ½ month.	2
2nd	Leinster Regiment	29	15	—	—	—	3	·96	517·2	—	103·45	33·10	12·08	23·36	Middelburg, T., 1 month. To Mauritius, 28.1.06.	3
1st	Royal Garrison Regiment ...	144	25	2	—	2	8	2·66	173·6	13·89	55·56	18·47	6·74	38·84	Pietermaritzburg, 12 months	2
2nd	Mounted Infantry...	415	229	—	—	—	7	11·39	514·6	—	15·73	25·60	9·34	18·15	Harrismith, 12 months	Various.
5th	Mounted Infantry...	423	119	2	—	2	1	6·49	281·3	4·73	2·36	15·34	5·60	19·90	Middelburg, T., 11½ months; Manœuvres, ½ month.	Various.
6th	Mounted Infantry...	570	222	—	—	—	1	9·59	389·5	—	1·75	16·82	6·14	15·77	Standerton, 11½ months; Manœuvres, ½ month.	Various.
	Other Infantry	71	66	3	—	3	13	11·34	929·6	42·25	183·10	159·72	58·30	62·72	Various	Various.
	Total	10,605	4,502	32	2	34	164	294·11	424·5	3·21	15·46	27·73	10·12	23·84		

,,	Royal Irish Fusiliers	188	38	—	—	1·75	202·1	—	—	9·31	3·40	16·81	Armagh	,,
,,	Connaught Rangers	232	99	2	1	3·63	426·7	8·62	4·31	15·65	5·71	13·38	Galway	,,
,,	Argyll and Sutherland Highlanders ...	150	47	—	3	1·90	313·3	—	20·00	12·67	4·62	14·75	Stirling	,,
,,	Leinster Regiment	231	75	—	3	3·38	324·7	—	12·99	14·63	5·34	16·45	Birr	,,
,,	Royal Munster Fusiliers	130	54	3	2	2·07	415·4	23·08	15·38	15·92	5·81	13·99	Tralee	,,
,,	Royal Dublin Fusiliers	157	11	—	—	1·12	70·1	—	—	7·13	2·60	37·16	Naas	,,
,,	Rifle Depôt	665	186	3	4	6·36	279·7	4·51	6·02	9·56	3·49	12·48	Winchester	,,
	Detached	112	4	—	—	·01	35·7	—	—	·09	·03	·91	Various	—
	Total Regimental Depôts ...	11,960	4,381	59	116	176·88	366·3	4·23	9·70	14·79	5·40	14·73		
	Garrison Staff and Departments ...	11,080	3,450	34	99	193·60	311·4	3·07	8·94	17·47	6·38	20·48	Various	—

Battery, Company, or Battn.	Corps and Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength. Admitted.	Died.	Invalided.	Constantly Sick.	Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Completed Years of Service in the Command.
	Mauritius—*contd.*															
	Garrison Staff and Departments.												days.	days.		
31st	Royal Army Medical Corps ...	35	21	1	—	1	—	1·32	600·0	28·57	—	37·71	13·77	22·94	Mauritius, 12 months	Various.
	Garrison Staff and Departments	21	8	—	—	—	1	·55	381·0	—	47·62	26·19	9·56	25·09	Mauritius, 12 months	Various.
	Total	56	29	1	—	1	1	1·87	517·9	17·86	17·86	33·39	12·19	23·54		
	Grand Total	1,193	801	8	1	9	42	54·82	671·4	7·54	35·21	45·95	16·77	24·98		
	Ceylon.															
	Royal Artillery.															
93rd	Royal Garrison Artillery ...	140	85	1	1	2	8	5·89	607·1	14·29	57·14	42·07	15·36	25·29	Colombo, 12 months	2
	Other Artillery	4	1	—	—	—	—	·10	250·0	—	—	25·00	9·13	36·50	Various	Various.
	Total	144	86	1	1	2	8	5·99	597·2	13·89	55·56	41·60	15·18	25·42		
	Royal Engineers.	53	23	1	—	1	—	1·17	434·0	18·87	—	22·08	8·06	18·57	Various	Various.
	Infantry.															
2nd	Worcestershire Regiment ...	875	564	9	—	9	10	34·17	644·6	10·29	11·43	39·05	14·25	22·11	Detachments at all stations, 12 months	2
	Other Infantry	—	1	—	—	—	—	·24	—	—	—	—	—	65·75		
	Total	875	565	9	—	9	10	34·41	645·7	10·29	11·43	39·33	14·35	22·23		

	Infantry Regiments.															
3rd	Lancashire Fusiliers (Details) ...	12	16	—	—	—	—	·99	1333·3	—	—	82·50	30·11	22·58	Arrived from South Africa, 28.10.06. To Malta, 8.11.06.	—
2nd	Duke of Cornwall's Light Infantry	840	306	3	1	4	8	24·55	364·3	4·76	9·52	29·23	10·67	29·28	Gibraltar, 12 months	1
1st	Border Regiment	202	139	1	—	1	—	6·65	688·1	4·95	—	32·92	12·02	17·46	Arrived from England, 5.9.06	—
2nd	Royal Munster Fusiliers... ...	696	236	5	—	5	8	19·79	339·1	7·18	11·49	28·43	10·38	30·61	Gibraltar, 12 months	2
1st	King's Own Yorkshire Light Infantry	671	225	4	—	4	7	19·68	335·3	5·96	10·43	29·33	10·71	31·93	Left for South Africa, 5.9.06	1
	Total	2,421	922	13	1	14	23	71·66	380·8	5·78	9·50	29·60	10·80	28·37		
	Garrison Staff and Departments.															
69	Army Service Corps	77	16	—	—	—	2	1·79	207·8	—	25·97	23·25	8·49	40·83	Various	Various.
28	Royal Army Medical Corps ...	91	39	—	—	—	1	2·81	428·6	—	10·99	30·88	11·27	26·30	Various	Various.
8	Army Ordnance Corps	70	12	—	—	—	1	1·02	171·4	—	14·29	14·57	53·18	31·03	Various	Various.
Det.	Army Pay Corps	16	4	—	—	—	—	·15	250·0	—	—	9·38	3·42	13·69	Various	Various.
	Garrison Staff, &c.	21	5	—	—	—	1	·23	238·1	—	47·62	10·95	4·00	16·79	Various	Various.
	Total	275	76	—	—	—	5	6·00	276·4	—	18·18	21·82	7·96	28·81		
	Grand Total	4,780	1,592	17	2	19	44	123·08	333·1	3·97	9·21	25·75	9·40	28·22		
	MALTA.															
	Cavalry.															
6th	Dragoons	—	—	—	—	—	—	·06	—	—	—	—	—	—		
	Total	—	—	—	—	—	—	·06	—	—	—	—	—	—		
	Royal Artillery.															
1st	Royal Garrison Artillery ...	270	108	1	—	1	10	9·15	400·0	3·70	37·04	33·89	12·37	30·92	Headquarters, Fort Tigné, 12 months ...	2
6th	Royal Garrison Artillery ...	203	117	2	—	2	9	7·22	576·4	9·85	44·33	35·57	12·98	22·52	Headquarters, Fort Ricasoli, 12 months	2

Battery, Company, or Battn.	Corps and Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Sick each Time to Soldier.	Duration of each Case of Sickness.	Stations occupied during the Year.	Completed Years of Service in the Command.
				In the Command.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.				
	MALTA—*contd.*												days.	days.		
63rd	Royal Garrison Artillery ...	203	59	1	—	1	7	3·43	290·6	4·93	34·38	16·90	6·17	21·22	Headquarters, Fort Ricasoli, 12 months	4
65th	Royal Garrison Artillery ...	211	107	—	—	—	12	7·91	507·1	—	56·87	37·49	13·68	26·98	Headquarters, Fort St. Elmo, 12 months	2
96th	Royal Garrison Artillery ...	236	83	—	—	—	5	7·43	351·7	—	21·19	31·48	11·49	32·67	Headquarters, Fort St. Elmo, 12 months	4
99th	Royal Garrison Artillery ...	191	110	1	—	1	12	6·58	575·9	5·24	62·83	34·45	12·57	21·83	Headquarters, Fort Tigné, 12 months ...	3
100th	Royal Garrison Artillery ...	244	104	1	—	1	8	5·72	426·2	4·10	32·79	23·44	8·56	20·07	Headquarters, Fort Ricasoli, 12 months	3
102nd	Royal Garrison Artillery ...	196	77	1	—	1	12	6·06	392·9	5·10	61·22	30·92	11·29	28·73	Headquarters, Fort Tigné, 12 months ...	2
	District Staff	30	1	—	—	—	3	·67	33·3	—	100·00	22·33	8·15	244·55	Various	Various.
	Total	1,784	766	7	—	7	78	54·17	429·4	3·92	43·72	30·36	11·08	25·81		
	Royal Engineers.	321	102	1	—	1	9	7·15	317·8	3·12	28·04	22·27	8·13	25·59	Various	Various.
	Infantry.															
1st	Lancashire Fusiliers	359	191	—	1	1	28	16·36	532·0	2·79	77·99	45·57	16·63	31·26	St Elmo, 4 months. To Egypt from 3.5.06 to 13.12.06. St. Andrews, ½ month.	1
4th	Worcestershire Regiment ...	862	552	1	—	1	14	27·49	640·4	1·16	16·24	31·89	11·64	18·18	Verdala 11 months. To Egypt from 11.5.06 to 9.6.06. Returned to Malta.	1
2nd	Royal Sussex Regiment	136	50	—	—	—	8	3·03	367·6	—	58·82	22·28	8·13	22·12	Imtarfa, 4 months. To Crete, April, 1906.	1
2nd	Essex Regiment	716	263	1	—	1	17	13·93	367·3	1·40	23·74	19·46	7·10	19·33	Imtarfa, 12 months...	2
1st	Royal West Kent Regiment ...	741	427	1	—	1	42	30·03	576·3	1·35	56·68	40·53	14·79	25·67	Floriana, 11½ months. To England, 12.06.	2

1st	Rifle Brigade	538	159	1	—	1	15	12·13	295·5	1·86	27·88	22·55	8·23	27·85	St. Andrew's, 10 months. To England, 10.06.	2
4th	Rifle Brigade	809	427	1	—	1	13	26·92	527·8	1·24	16·07	33·28	12·15	23·01	St. George's, 11½ months; Floriana, ½ month.	1
	Other Infantry	9	5	—	—	—	16	2·32	555·6	—	1777·78	257·78	94·09	109·36	Various	Various.
	Total	4,170	2,074	5	1	6	153	132·21	497·4	1·44	36·69	31·71	11·57	23·27		
	Garrison Staff and Departments.															
70th	Army Service Corps	83	16	2	—	2	2	2·14	192·8	24·10	24·10	25·78	9·41	48·82	Various	Various.
30th	Royal Army Medical Corps ...	163	134	1	—	1	21	8·12	822·1	6·13	128·83	49·82	18·18	22·12	Various	Various.
21st	Army Ordnance Corps	72	22	—	—	—	4	1·78	305·6	—	55·56	24·72	9·02	29·53	Various	Various.
	Garrison Staff and Departments	68	17	1	—	1	1	1·24	250·0	14·71	14·71	18·24	6·66	26·62	Various	Various.
	Total	386	189	4	—	4	28	13·28	489·6	10·36	72·54	34·40	12·56	25·65		
	Grand Total	6,661	3,131	17	1	18	268	206·87	470·0	2·70	40·23	31·06	11·34	24·12		
	CRETE.															
	Royal Engineers.	7	1	—	—	—	—	·12	142·9	—	—	17·14	6·26	43·80	Various	Various.
	Infantry.															
2nd	Royal Inniskilling Fusiliers ...	73	21	—	—	—	—	2·21	287·7	—	—	30·27	11·05	38·41	From Egypt, 25.2.06. To Egypt 3.5.06	—
2nd	Royal Sussex Regiment	682	224	3	—	3	8	11·31	328·5	4·40	11·73	16·58	6·05	18·43	Det. from Malta, 3.5.06	1
1st	King's Royal Rifle Corps... ...	62	14	1	—	1	1	1·16	225·8	16·13	16·13	18·71	6·83	30·24	To Egypt, 25.2.06	—
	Total	817	259	4	—	4	9	14·68	317·0	4·85	4·85	17·97	6·56	20·68		
	Garrison Staff and Departments.	19	2	—	—	—	—	·03	105·3	—	—	1·58	·58	5·47	Various	Various.
	Grand Total	843	262	4	—	4	9	14·83	310·8	4·74	10·68	17·59	6·42	20·66		

Battery, Company, or Battn.	Corps and Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength. Admitted.	Died.	Invalided.	Constantly Sick.	Sick Time to each Soldier.	Duration of each Case of Sickness.	Stations occupied during the Year.	Completed Years of Service in the Command.
	CYPRUS.															
	Infantry.												days.	days.		
2nd	Royal Inniskilling Fusiliers ...	83	27	—	—	—	1	2·26	325·3	—	12·05	27·23	9·94	30·55	Det. from Egypt 28.2.06	—
1st	King's Royal Rifle Corps ...	16	14	—	—	—	—	1·33	875·0	—	—	83·12	30·34	34·67	Det. to Egypt 28.2.06	—
	Total	99	41	—	—	—	1	3·59	414·1	—	10·10	36·26	13·24	31·96		
	Garrison Staff and Departments.	7	—	—	—	—	—	—	—	—	—	—	—	—	Various	Various.
	Grand Total	106	41	—	—	—	1	3·59	386·8	—	9·43	33·87	12·36	31·96		
	BERMUDA.															
	Royal Artillery.															
3	Royal Garrison Artillery... ...	114	32	—	—	—	2	1·50	280·7	—	17·54	13·16	4·80	17·11	St. George's, 12 months. Detachments at Ireland Island, and Whale Bay	3
95	Royal Garrison Artillery... ...	161	61	2	—	2	4	4·10	378·9	12·42	24·84	25·47	9·30	24·53	St. George's, 12 months. Detachments at Ireland Island and Whale Bay	3
	Permanent Staff, R.G.A.... ...	4	1	—	—	—	—	·12	250·0	—	—	30·00	10·95	43·80	St. George's, 12 months	Various.
	Total	279	94	2	—	2	6	5·72	336·9	7·17	21·51	20·50	7·48	22·21		

	Royal Engineers.	112	15	—	—	..	1	·69	133·9	—	8·93	6·16	2·25	16·79	Various	Various.
	Infantry.															
2nd	Hampshire Regiment	842	389	2	—	2	10	24·04	462·0	2·38	11·88	28·55	10·42	22·56	Prospect, 12 months. Detachments at Boaz, St. George's and Warwick Camp	1
	Other Infantry	5	—	—	—	—	5	·47	—	—	1000·00	94·00	—	—	Various	Various.
	Total	847	389	2	—	2	15	24·51	459·3	2·36	17·71	28·94	10·56	23·00		
	Garrison Staff and Departments.															
Det.	Army Service Corps	12	2	—	—	—	—	·06	166·7	—	—	5·00	1·83	10·95	Prospect and St. George's, 12 months ...	Various.
25	Royal Army Medical Corps ...	27	7	1	—	1	—	·58	259·3	37·04	—	21·48	7·84	30·24	Prospect, St. George's, and Watford, 12 months.	Various.
Det.	Army Ordnance Corps	47	8	—	—	—	1	·39	170·2	—	21·28	8·30	3·03	17·79	Prospect, St. George's, and Ireland Island, 12 months.	Various.
	Garrison Staff and Departments	7	2	—	—	—	—	·16	285·7	—	—	22·86	8·34	29·20	Prospect, and St. George's, 12 months...	Various.
	Total	93	19	1	—	1	1	1·19	204·3	10·75	10·75	12·80	4·67	22·86		
	Grand Total	1,331	517	5	—	5	23	32·11	388·4	3·76	17·28	24·12	8·81	22·67		
	WESTERN AFRICA.															
	Various Corps	232	239	1	—	1	14	13·75	1030·2	4·31	60·34	59·27	21·63	21·00	Sierra Leone, under 1 year	—
	ST. HELENA.															
	Various Corps	123	33	—	—	—	3	2·00	255·8	—	23·25	15·50	5·66	22·12	St. Helena, 10 months	Various.
	SOUTH AFRICA.															
	Cavalry.															
2nd	Dragoon Guards	583	167	3	—	3	2	11·76	286·4	5·15	3·43	20·17	7·36	25·70	Pretoria, 11½ months; manœuvres, ½ month.	5
4th	Dragoon Guards	557	244	6	—	6	—	13·99	438·1	10·77	—	25·12	9·17	20·93	Middelburg, 12 months	2

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Admissions.	Deaths.
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7·7	—
38·5	—
7·7	—
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23·3	—
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23·3	—
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7·7	—
7·7	—
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7·7	—
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38·8	—
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15·5	—
7·7	—
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7·7	—
—	—
62·0	—
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255·8	—

Battery, Company, or Battn.	Corps and Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Completed Years of Service in the Command.
				In the Command.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.				
	SOUTH AFRICA—*contd.*												days.	days.		
2nd	Yorkshire Regiment	701	476	1	—	1	11	28·59	679·0	1·43	15·69	40·78	14·89	21·92	Wynberg, 9 months. From India, 11.3.06.	—
3rd	Lancashire Fusiliers	426	149	3	—	3	2	8·75	349·8	7·04	4·69	20·54	7·50	21·43	Pretoria, 9½ months. To England, 10.06	2
1st	Duke of Cornwall's Light Infantry	118	63	1	—	1	7	4·67	533·9	8·47	59·32	39·58	14·45	27·06	Wynberg, 1½ months. To England, 12.2.06.	4
2nd	Border Regiment	711	300	2	1	3	16	17·14	421·9	4·22	22·50	24·11	8·80	20·85	Potchefstroom, 8 months; Pretoria, 3½ months; Manœuvres, ½ month.	1
2nd	Welsh Regiment	90	60	—	—	—	—	3·25	666·6	—	—	36·11	13·18	19·77	Bloemfontein, 2 months. From India, 22.10.06.	—
2nd	Loyal North Lancashire Regiment	580	188	1	—	1	7	14·11	324·1	1·72	12·07	24·33	8·88	27·29	Pretoria, 8½ months; Standerton, 3 months; Manœuvres, ½ month.	2
1st	King's Own Yorkshire Light Infantry	163	98	1	—	1	—	7·13	601·2	6·13	—	43·74	15·97	26·56	Pretoria, 8 months. From Gibraltar, 30.9.06.	—
3rd	Middlesex Regiment	544	242	2	1	3	22	15·00	444·9	5·51	40·44	27·57	10·06	22·62	Barberton and Middelburg, T., 8½ months. To China, 14.9.06.	3
3rd	Manchester Regiment	511	218	2	—	2	4	14·12	426·6	3·91	7·83	27·63	10·09	23·64	Barberton to Middelburg, C. C., 10 months. To England, 27.10.06.	4
2nd	Cameron Highlanders	743	290	—	—	—	1	15·33	390·3	—	1·35	20·63	7·53	19·30	Pretoria, 5 months; Pietermaritzburg, 6½ months; Manœuvres, ½ month.	2
2nd	Leinster Regiment	29	15	—	—	—	3	·96	517·2	—	103·45	33·10	12·08	23·36	Middelburg, T., 1 month. To Mauritius, 28.1.06.	3
1st	Royal Garrison Regiment ...	144	25	2	—	2	8	2·66	173·6	13·89	55·56	18·47	6·74	38·84	Pietermaritzburg, 12 months	2
2nd	Mounted Infantry...	415	229	—	—	—	7	11·39	514·6	—	15·73	25·60	9·34	18·15	Harrismith, 12 months	Various.
5th	Mounted Infantry...	423	119	2	—	2	1	6·49	281·3	4·73	2·36	15·34	5·60	19·90	Middelburg, T., 11½ months; Manœuvres, ½ month.	Various.
6th	Mounted Infantry...	570	222	—	—	—	1	9·59	389·5	—	1·75	16·82	6·14	15·77	Standerton, 11½ months; Manœuvres, ½ month.	Various.
	Other Infantry	71	66	3	—	3	13	11·34	929·6	42·25	183·10	159·72	58·30	62·72	Various	Various.
	Total	10,605	4,502	32	2	34	164	294·11	424·5	3·21	15·46	27·73	10·12	23·84		

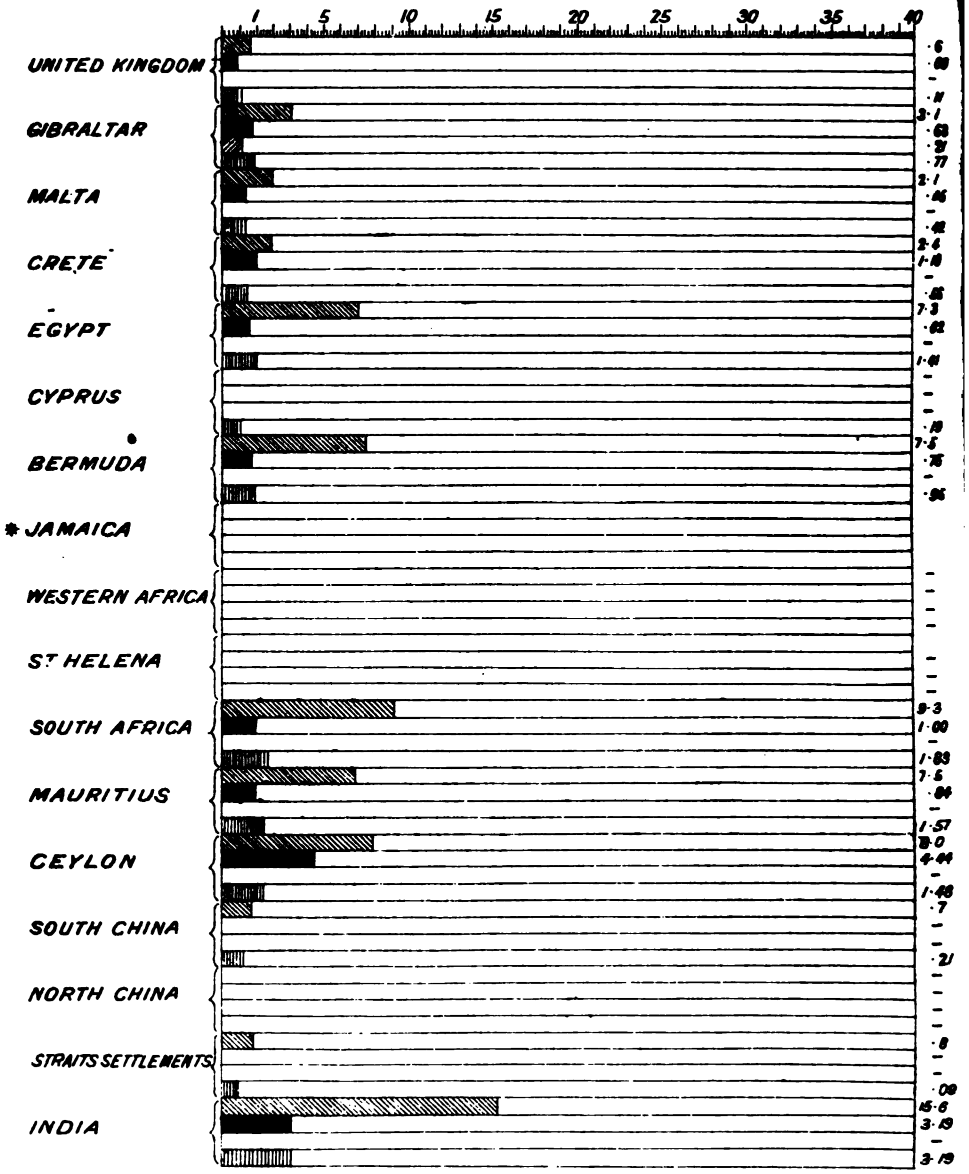
nt Sections of Disea

‡St. Helena.			‡South
Admissions.	Deaths.	Invaliding.	Admissions.
—	—	—	·0
4·2	—	—	3·8
—	—	—	—
40·3	—	—	21·0
—	—	—	·1
16·4	2·12	·53	26·4
4·8	—	—	6·9
—	—	—	—
14·8	—	—	15·2
—	—	—	—
3·2	—	—	21·1
—	—	—	2·1
1·6	—	·53	2·0
23·9	—	·53	19·5
90·1	—	—	26·1
5·8	—	—	10·6
—	—	—	—
60·9	—	—	9·6
—	—	—	·1
4·8	·53	—	2·7
21·2	—	·53	17·8
7·4	—	1·06	12·0
5·3	—	·53	3·1
6·9	·53	3·18	7·5
1·6	—	1·59	1·5
8·5	—	1·59	11·1
7·4	—	1·06	10·5
12·2	·53	2·12	11·7
32·9	2·12	—	27·4
106·5	—	2·12	130·4
8·5	—	—	3·9
6·4	1·06	1·06	2·4
20·1	—	—	8·1
14·8	—	3·18	14·7
18·6	—	—	19·5
55·1	—	—	30·7
1·1	—	—	1·6
75·8	—	·53	72·9
—	—	—	·0
—	—	—	·4
—	—	—	—
—	—	—	—
—	—	—	—
3·7	—	—	3·9
684·7	*6·89*	*20·14*	*558·6*

‡ *1902 to 1905.*

CHART SHOWING THE SICKNESS, MORTALITY, INVALIDING AND AVERAGE CONSTANTLY SICK FROM ENTERIC FEVER IN THE VARIOUS COMMANDS OCCUPIED BY BRITISH TROOPS DURING 1906.

RATIO PER 1,000 OF STRENGTH.



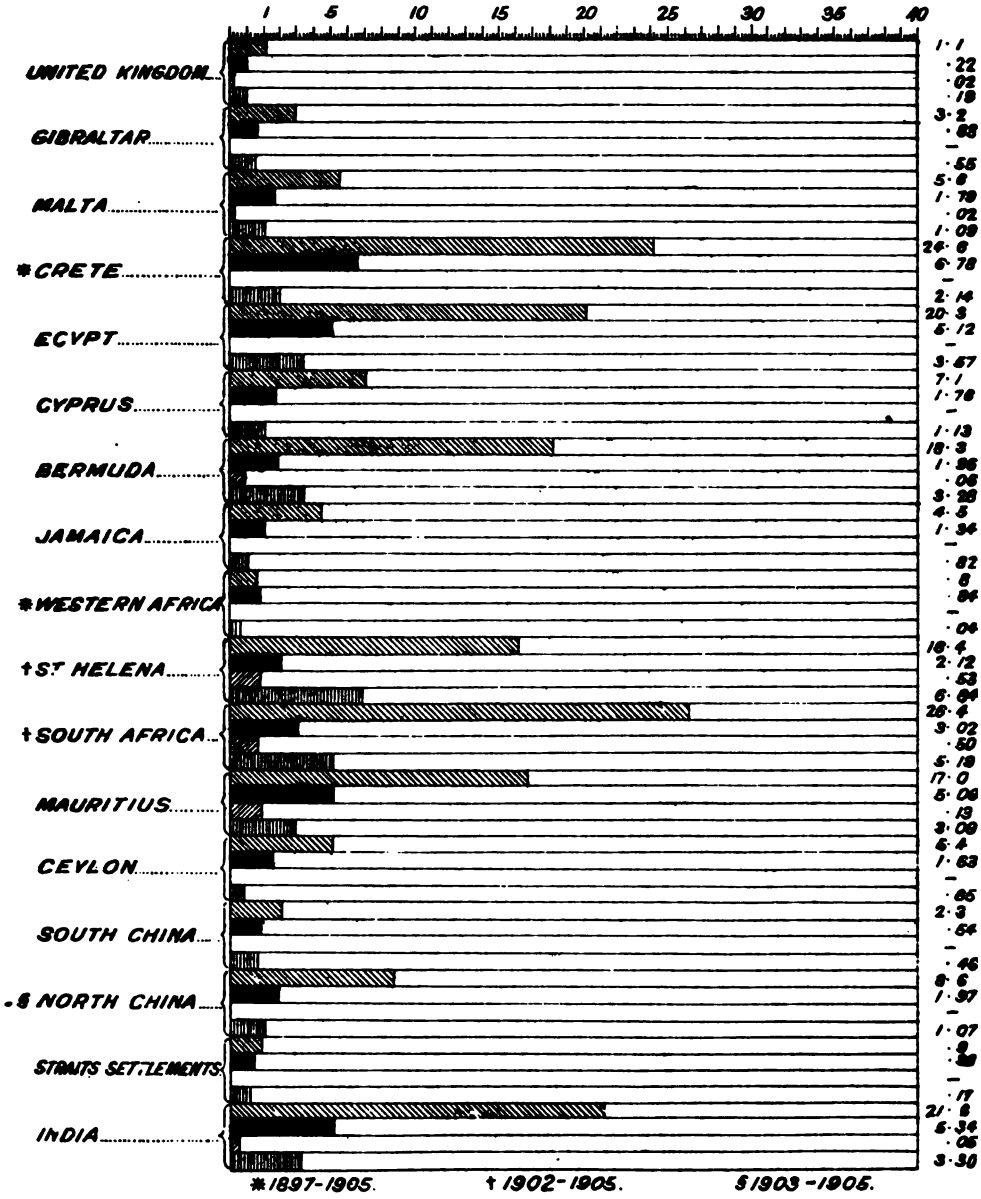
ADMISSIONS, SHOWN THUS... DEATHS, SHOWN THUS...... INVALIDS, SHOWN THUS... AVERAGE CONSTANTLY SICK, SHOWN THUS.

* NO INFORMATION AVAILABLE.

Weller & Graham, Ltd Litho. London.

CHART SHOWING THE SICKNESS, MORTALITY, INVALIDING AND AVERAGE CONSTANTLY SICK FROM ENTERIC FEVER IN THE VARIOUS COMMANDS OCCUPIED BY BRITISH-TROOPS DURING THE 10 YEARS, 1896—1905.

RATIO PER 1,000 OF STRENGTH.



*1897-1905. † 1902-1905. § 1903-1905.

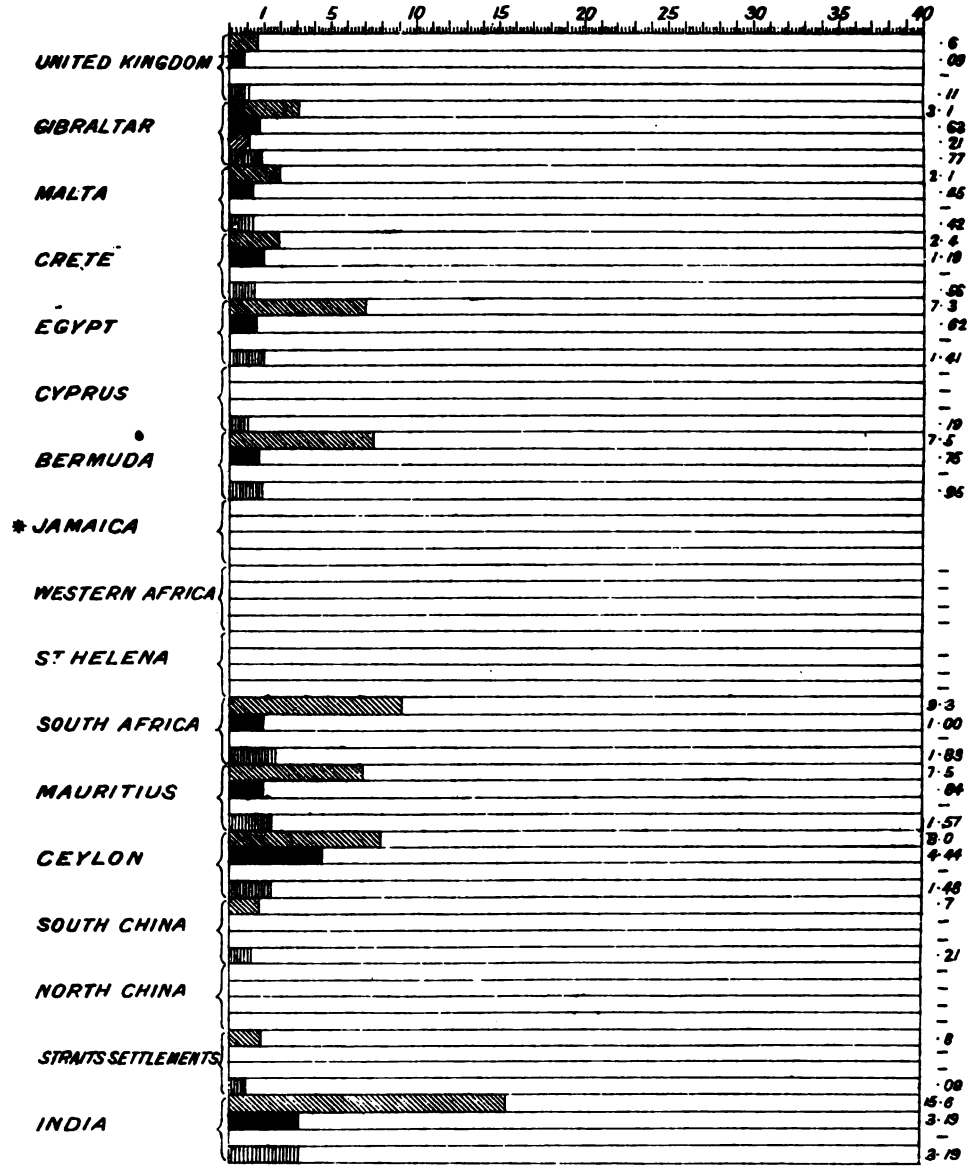
ADMISSIONS, SHOWN THUS ▨. DEATHS, SHOWN THUS ■.

INVALIDS, SHOWN THUS ■. AVERAGE CONSTANTLY SICK, SHOWN THUS ■

Waller & Graham, Ltd Litho. Lond

CHART SHOWING THE SICKNESS, MORTALITY, INVALIDING AND AVERAGE CONSTANTLY SICK FROM ENTERIC FEVER IN THE VARIOUS COMMANDS OCCUPIED BY BRITISH TROOPS DURING 1906.

RATIO PER 1,000 OF STRENGTH.



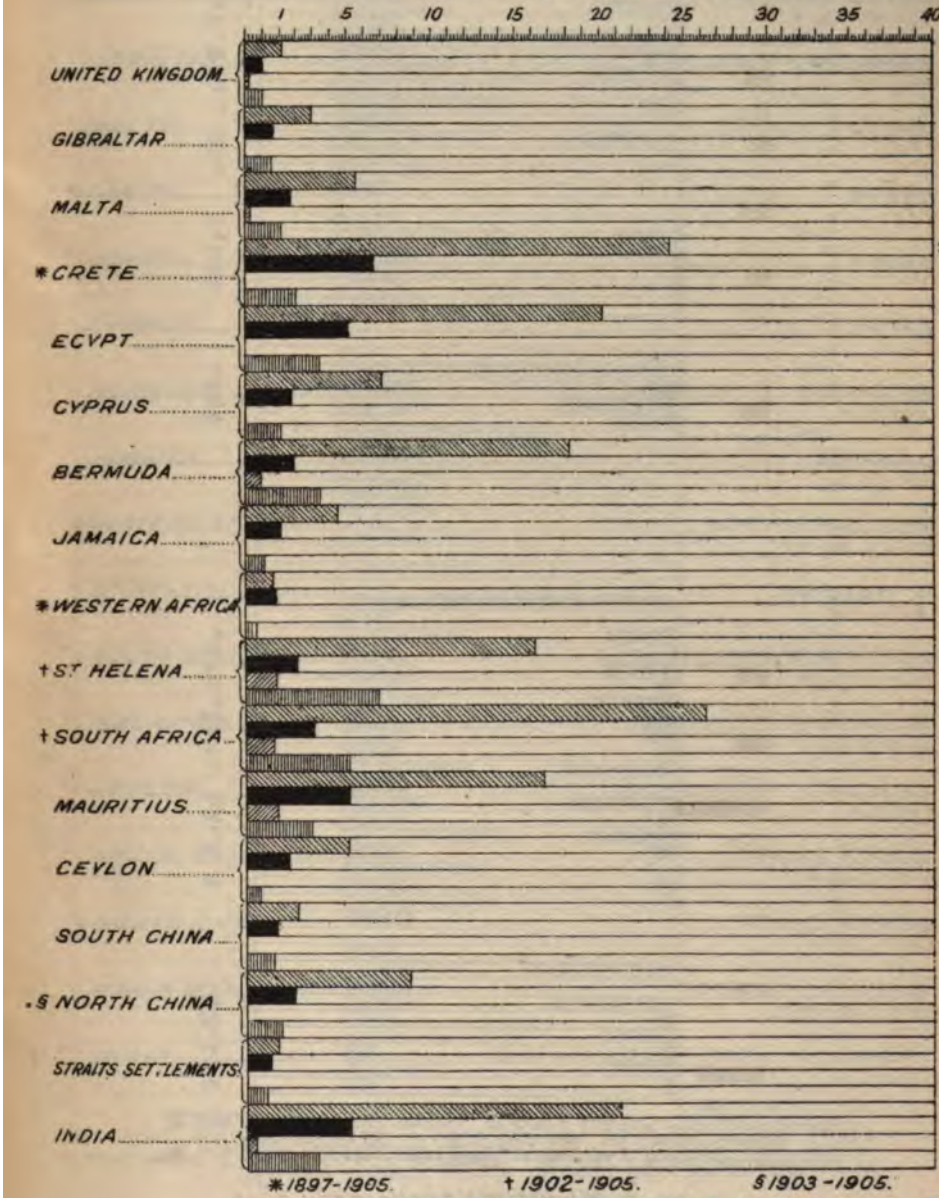
ADMISSIONS, SHOWN THUS.. ▧. DEATHS, SHOWN THUS..... ■.
INVALIDS, SHOWN THUS.. ▨. AVERAGE CONSTANTLY SICK, SHOWN THUS ■.

* NO INFORMATION AVAILABLE.

Weller & Graham, Ltd Litho. London.

CHART SHOWING THE SICKNESS, MORTALITY, INVALIDING AND AVERAGE CONSTANTLY SICK FROM ENTERIC FEVER IN THE VARIOUS COMMANDS OCCUPIED BY BRITISH-TROOPS DURING THE 10 YEARS, 1896—1905.

RATIO PER 1,000 OF STRENGTH.



*1897-1905. †1902-1905. §1903-1905.

ADMISSIONS, SHOWN THUS ▧. DEATHS, SHOWN THUS ■.

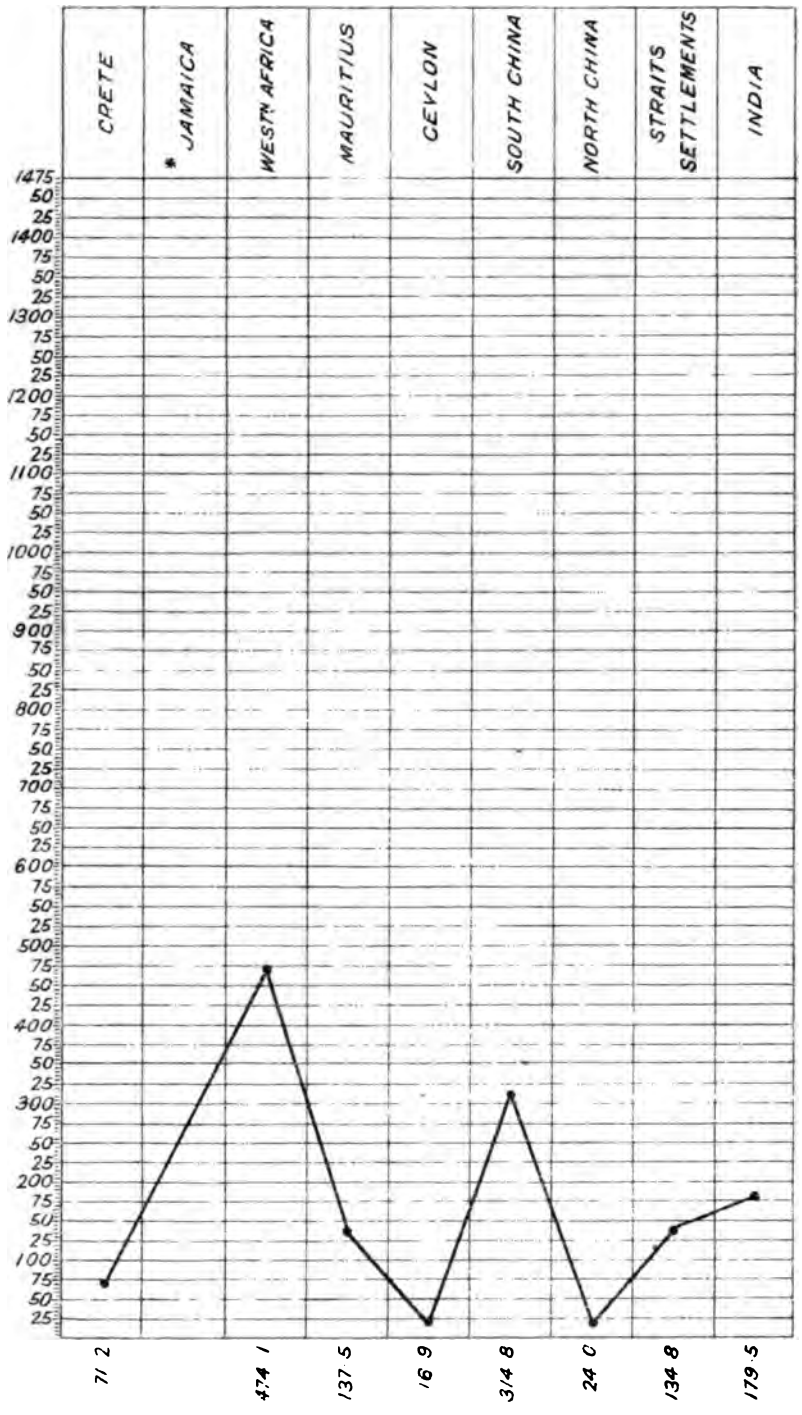
INVALIDS, SHOWN THUS ▨. AVERAGE CONSTANTLY SICK, SHOWN THUS ▩.

129. 07.

Weller & Graham, Ltd Litho. Lond

CHART SHOWING THE INCIDENCE OF SICKNESS FROM MALARIAL FEVERS AT THE UNDERMENTIONED STATIONS DURING 1906.

RATIO PER 1,000 OF STRENGTH.



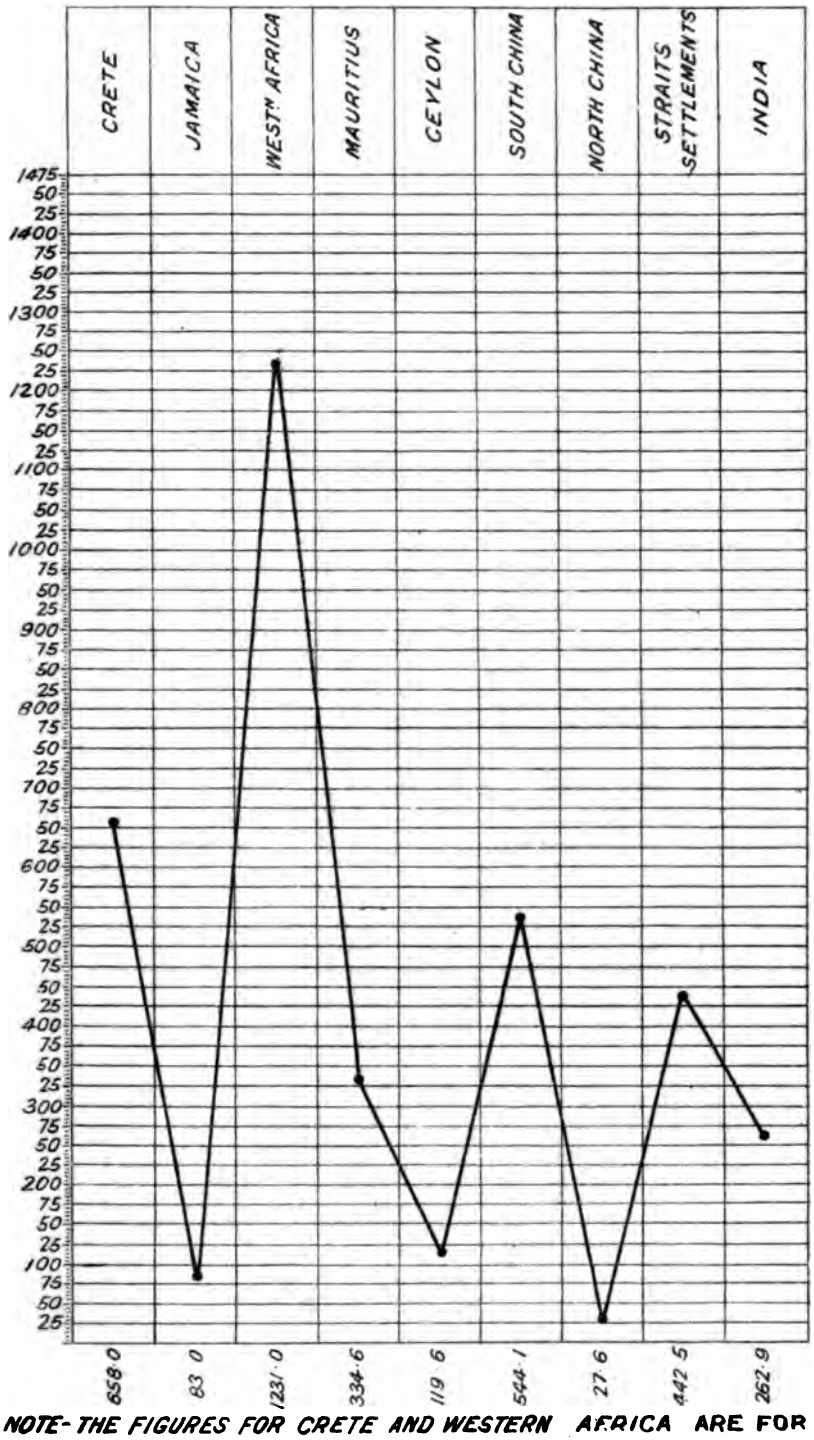
* NO INFORMATION AVAILABLE.

1319. 07

Weller & Graham, Ltd. Litho. London.

CHART SHOWING THE INCIDENCE OF SICKNESS FROM MALARIAL FEVERS AT THE UNDERMENTIONED STATIONS DURING THE 10 YEARS 1896–1905.

RATIO PER 1,000 OF STRENGTH.



NOTE- THE FIGURES FOR CRETE AND WESTERN AFRICA ARE FOR THE PERIOD 1897-1905, & FOR NORTH CHINA FOR THE PERIOD 1903-1905.

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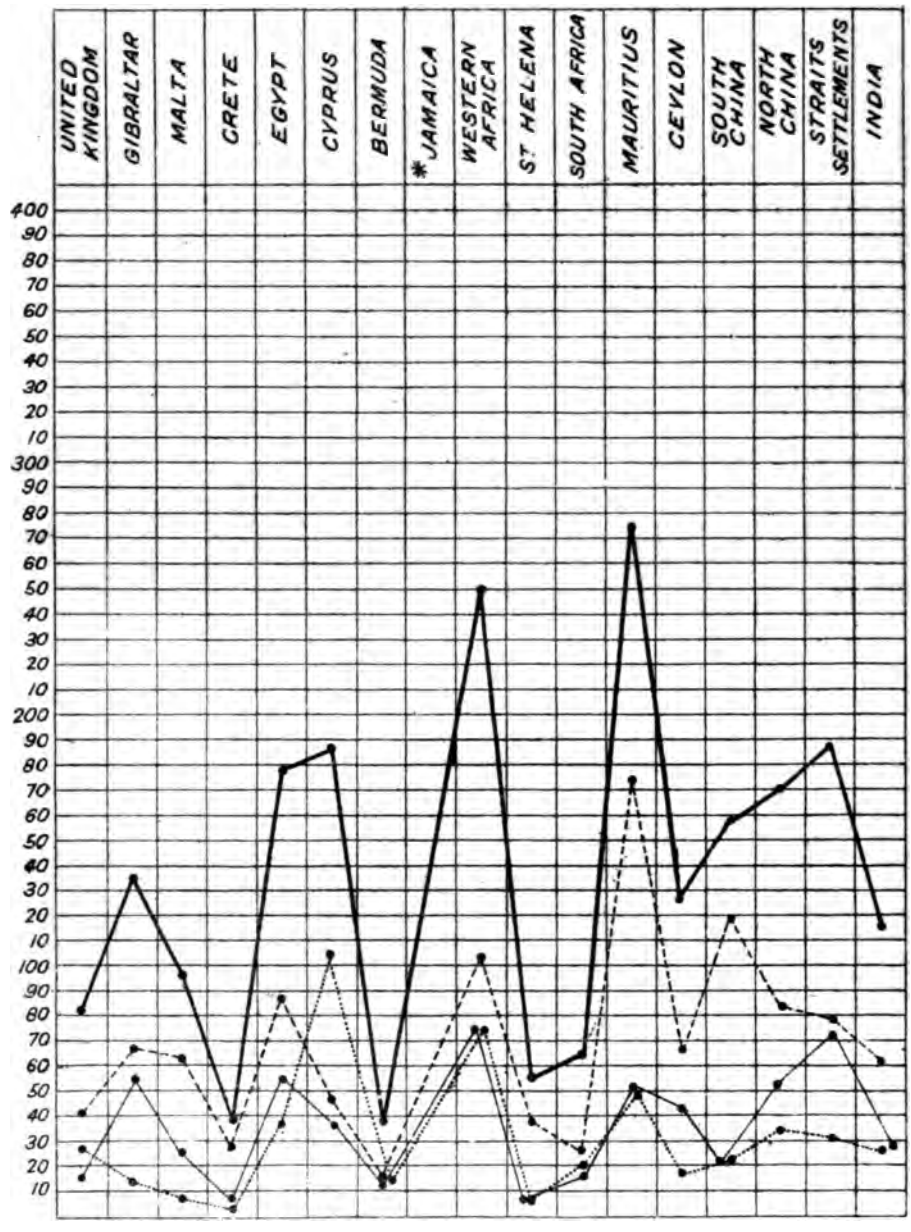
CHART SHOWING THE INCIDENCE OF VENERAL DISEASE IN THE VARIOUS COMMANDS OCCUPIED BY BRITISH TROOPS DURING 1906.

RATIO PER 1,000 OF STRENGTH.



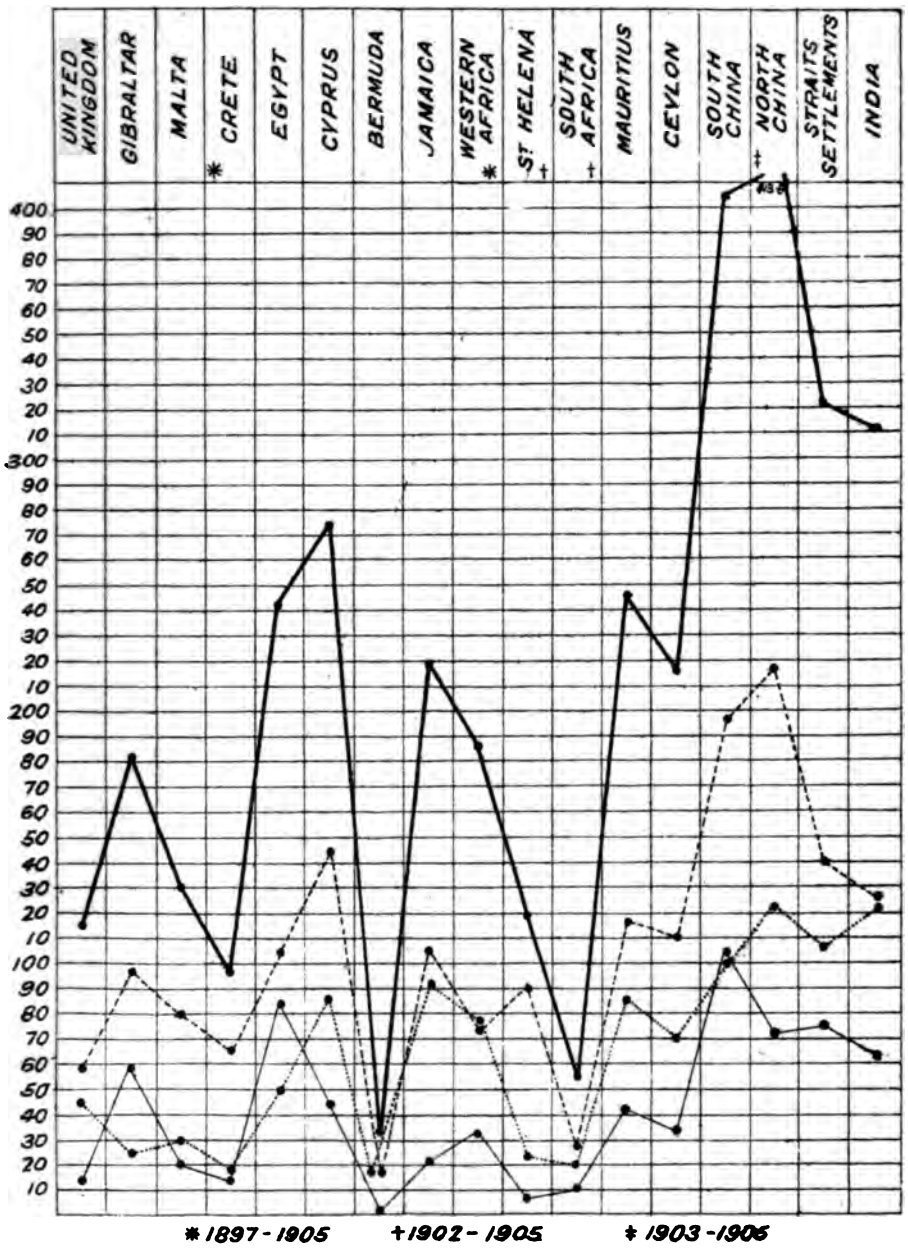
SYPHILIS, SHOWN THUS ....., GONORRHŒA, SHOWN THUS - - - - -.
SOFT CHANCRE, " " ———, ALL VENEREAL DISEASES, "———.

* NO INFORMATION AVAILABLE.

1210. 07. Weller & Graham, Ltd Litho. London.

CHART SHOWING THE INCIDENCE OF VENEREAL DISEASE IN THE VARIOUS COMMANDS OCCUPIED BY BRITISH TROOPS DURING THE 10 YEARS 1896-1905.

RATIO PER 1,000 OF STRENGTH.



* 1897-1905 † 1902-1905 ‡ 1903-1905

SYPHILIS, SHOWN THUS ....., GONORRHŒA, SHOWN THUS - - - -

SOFT CHANCRE, " " ——, ALL VENEREAL DISEASES, " ——

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METEOROLOGICAL OBSERVATIONS.

Annual Abstract of Meteorological Observations taken

NETLEY. Lat. 50° 51′ 0″ N.

Month.	Mean Pressure — Corrected and reduced to 32° Fahrenheit.	Air Temperature.								Tension of Vapour.	Relative Humidity.		
		Mean at 9 a.m.	Mean daily.	Means of		Abs. Max.		Abs. Min.			Per cent.	Min.	
				Max.	Min.	Temp.	Day.	Temp.	Day.		Mean.	Per cent.	Day.
January ...	29·879	40·7	41·0	48·2	33·8	53·2	5	19·0	24	·240	89	50	24
February...	29·706	37·2	37·5	46·2	28·8	51·0	16	20·8	6	·207	85	55	24
March ...	29·957	40·0	41·0	50·1	31·9	62·0	6	22·0	30	·226	84	63	26
April ...	30·073	45·2	46·0	59·4	32·6	70·0	10	24·6	26	·259	73	68	20
May ...	29·743	51·2	52·4	63·3	41·5	78·0	8, 13	28·0	2, 18	·342	82	68	27
June ...	30·000	59·4	58·2	72·5	43·9	82·4	23	33·6	6	·435	78	57	20
July ...	29·997	63·6	62·6	76·6	48·6	84·8	18	37·8	13	·489	73	57	10
August ...	29·914	64·6	65·1	78·1	52·1	86·0	31	42·6	30	·521	76	65	6
September	30·090	58·7	57·9	69·7	46·2	85·0	1	36·2	26	·439	79	62	2
October ...	29·953	54·0	52·7	61·2	44·2	71·0	1	30·0	26	·338	86	71	1
November	29·813	46·2	45·1	52·4	37·9	58·0	22	24·8	19	·294	90	61	12
December	29·886	37·5	37·1	44·0	30·3	53·0	2	19·0	31	·198	82	66	8
Year ...	29·918	49·9	49·7	60·1	39·3	86·0	31st Aug.	19·0	24th Jan. 31st Dec.	·332	81	50	24th Jan

GIBRALTAR. Lat. 36° 6′ 20″ N.

January ...	30·134	50·7	52·5	61·3	43·7	68·0	4, 5	32·6	24	·343	74	30	23
February .	30·035	47·4	50·9	61·3	40·5	69·4	3	31·6	6	·285	68	47	5
March ...	29·958	53·0	54·6	63·4	45·8	75·6	19	37·4	22	·346	72	47	24
April ...	29·926	56·7	56·5	64·3	48·8	70·0	28	39·6	20	·386	73	47	23
May ...	29·898	61·4	61·8	71·9	51·8	83·0	31	44·4	1	·416	64	42	28
June ...	29·931	68·2	68·8	79·1	58·5	91·0	25	52·6	7	·510	53	33	25
July ...	29·921	71·5	72·1	81·9	62·3	88·8	24	55·2	4	·588	63	42	11
August ...	29·936	74·0	74·9	85·3	64·6	93·0	11	59·0	8	·660	66	36	17
September	29·816	70·3	70·3	79·5	61·2	87·0	16	55·0	28	·619	73	43	12
October ...	29·932	66·2	65·0	74·5	55·6	82·8	6	44·0	31	·542	76	46	5
November	29·971	55·8	56·8	65·9	47·8	75·4	28	41·4	10, 27	·398	77	51	19
December	30·024	49·3	51·1	61·6	40·6	74·0	4	32·5	28	·321	75	50	25
Year ...	29·957	60·4	61·3	70·8	51·8	93·0	11th Aug.	31·6	6th Feb.	·451	69	30	23rd Jan.

VALETTA, MALTA. Lat. 35° 53′ 49″ N.

January ..	29·964	54·4	56·2	59·5	53·0	65·4	12	52·2	24	·344	72	46	25
February...	29·767	51·1	53·2	56·8	49·6	63·4	28	44·6	10	·298	70	54	28
March ...	29·775	55·7	58·0	62·4	53·6	70·0	22, 28	47·4	25	·351	67	47	21
April ..	29·932	56·3	59·3	62·8	55·8	69·6	17	47·8	1	·371	69	50	1
May ...	29·833	62·5	64·8	69·1	60·5	82·2	31	55·2	4	·420	64	36	31
June ...	29·846	69·3	71·4	75·7	67·2	84·8	1	63·0	6, 9	·543	67	46	1
July ..	29·891	75·3	78·4	83·2	73·6	89·6	14	71·0	16, 17	·696	67	46	4
August ...	29·913	75·2	80·2	85·3	75·0	91·4	7, 8	73·0	22	·714	67	40	7
September	29·928	73·3	76·2	80·4	72·0	86·2	8	65·2	27	·627	66	37	7
October ...	29·901	68·1	69·9	74·3	65·6	81·2	16	59·0	29	·564	72	50	31
November	29·964	63·8	66·4	70·6	62·2	76·2	5	57·0	18, 30	·553	71	44	30
December	29·786	54·2	56·5	60·4	52·6	68·4	9	45·0	18	·346	70	57	1, 3
Year ...	29·870	63·3	65·9	70·0	61·7	91·4	7th & 8th Aug.	44·6	10th Feb.	·485	68	36	31st May

at Netley and Stations Abroad in the Year 1906.

Long. 1° 21′ 0″ W. Height of Barometer Cistern above Sea, 47 feet.

Rainfall.			Weather.								Wind.							
			No. of days of								No. of Observations under each Point per Month.							
Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
7·81	1·65	2	21	—	1	—	—	6	11	—	2	4	2	5	6	18	15	10	—
3·65	·50	17	18	5	1	—	—	8	10	—	5	7	2	—	4	9	18	11	1
1·49	·25	13	12	5	—	—	2	9	17	—	10	12	—	1	9	13	7	8	2
·90	·44	5	8	—	1	—	—	8	7	—	5	16	4	4	2	6	13	10	—
1·99	·56	23	13	—	—	1	1	2	19	—	—	12	1	5	12	12	10	10	—
1·46	·87	28	5	—	—	1	—	13	8	—	2	5	6	11	10	8	9	7	2
·58	·17	21	4	—	—	—	—	9	4	—	3	8	5	5	3	15	16	5	2
1·43	·55	16	6	—	—	2	1	6	6	—	2	—	4	4	15	18	13	5	1
1·07	·43	14	4	—	—	—	—	5	5	—	3	15	8	5	9	12	3	5	—
6·71	1·22	8	18	—	—	1	—	2	11	—	8	1	2	3	12	19	10	4	3
4·09	·80	8	19	—	—	—	3	3	15	—	4	5	3	2	3	15	12	8	3
2·22	·55	30	13	2	1	—	—	3	17	—	18	10	8	—	2	6	4	12	2
34·0	1·65	2nd Jan.	141	12	4	5	7	74	130	—	62	95	45	45	87	151	130	95	20

Long. 5° 20′ 53″ W. Height of Barometer Cistern above Sea, 53 feet.

·45	·15	11	5	—	—	—	—	10	5	—	—	2	22	1	—	4	7	5	21
·38	·15	10	5	—	—	—	—	5	1	—	2	2	4	—	—	5	24	19	—
4·76	1·25	25	10	—	2	2	—	8	9	—	—	5	27	—	—	9	13	8	—
3·81	1·54	3	11	—	—	2	—	4	8	1	—	—	—	—	—	—	—	—	—
2·74	1·20	16	8	—	—	—	—	12	3	1	—	—	—	—	—	—	—	—	—
·89	·72	7	3	—	—	—	—	11	1	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	32	6	—	—	—	—	—	—	—	—	—	—
·55	·55	31	1	—	—	—	1	30	3	—	—	—	—	—	—	—	—	—	—
8·50	2·46	28	9	—	—	4	—	5	6	2	—	—	—	—	—	—	—	—	—
2·12	1·15	17	6	—	—	—	—	17	11	—	—	—	—	—	—	—	—	—	—
5·81	1·58	6	10	—	—	—	—	9	20	—	—	—	—	—	—	—	—	—	—
2·45	·62	22	9	—	—	—	—	29	14	—	—	—	—	—	—	—	—	—	—
32·36	2·46	28th Sep.	77	—	2	8	1	172	87	4	—	—	—	—	—	—	—	—	—

Long. 14° 30′ 54″ E. Height of Barometer Cistern above Sea, 112 feet.

3·64	·74	30	18	—	—	—	—	—	20	10	1	5	3	5	—	3	4	10	3
7·15	2·23	19	22	—	1	1	—	—	18	7	2	8	—	—	4	10	13	18	1
·19	·06	27	6	—	—	1	—	2	—	8	6	7	—	3	4	4	2	26	3
·49	·14	9	8	—	—	—	—	3	4	8	2	17	4	8	3	—	3	13	3
·29	·23	22	4	—	—	1	—	6	—	5	8	4	6	7	1	1	10	21	4
·02	·02	13	1	—	—	1	—	16	—	3	2	5	1	4	—	4	6	20	11
—	—	—	—	—	—	—	—	27	—	—	6	3	1	6	—	2	—	13	31
1·23	1·04	30	3	—	—	—	—	23	1	2	4	6	2	2	—	1	2	8	37
·65	·32	27	3	—	—	—	—	12	4	4	2	14	8	7	—	7	1	15	6
2·22	3·10	29	10	—	—	6	—	4	3	6	1	10	2	15	—	2	4	13	15
1·52	·38	15	7	—	—	—	—	3	2	8	1	13	4	9	2	2	1	11	17
3·97	·76	24	20	—	5	2	—	—	7	9	—	2	—	6	3	9	13	23	6
28·37	3·10	29th Oct.	102	—	6	12	—	103	59	70	49	94	31	72	17	45	66	191	137

Annual Abstract of Meteorological Observations taken

Polymedia, Cyprus. Lat. 34° 42′ 30″ N.

Month.	Mean Pressure — Corrected and reduced to 32° Fahrenheit.	Air Temperature.								Tension of Vapour.	Relative Humidity.		
		Mean at 9 a.m.	Mean daily.	Means of		Abs. Max.		Abs. Min.			Per cent.	Min.	
				Max.	Min.	Temp.	Day.	Temp.	Day.		Mean.	Per cent.	Day.
January ...	29·578	50·8	53·1	63·1	43·0	72·0	24	33·2	4	·299	64	44	18
February...	29·385	54·9	55·1	64·9	45·3	70·4	28	38·0	22	·399	67	49	7
March ...	29·963	58·5	59·2	68·8	49·7	83·1	26	41·2	17	·369	62	36	26
April ...	29·444	64·9	65·4	76·0	54·8	87·3	26	42·9	5	·403	52	35	16
May ...	29·332	67·7	65·8	74·7	56·9	86·9	23	49·1	28	·479	59	34	23
*June ...	29·316	73·4	72·9	83·1	62·8	86·9	4	43·1	18, 19	·583	58	49	4
July ...													
August ...													
September													
†October ...	29·000	75·5	76·4	88·0	64·8	97·8	18	56·5	27	·512	45	34	19
November	29·289	64·8	68·1	80·2	56·1	87·1	1	50·3	17	·418	55	36	7
December	29·249	56·7	59·5	68·3	50·8	73·7	19	41·2	14	·392	68	50	31
Year ...	—	—	—	—	—	—	—	—	—	—	—	—	—

* Up to and for 5th June. Instruments removed to Mount Troodôs.

† From 13th October. Earthquakes: 23rd February; 27th March.

Mount Troodôs, Cyprus. Lat. 34° 54′ 0″ N.

January ...													
February...													
March ...													
April ...													
May ...	‡												
*June ...	24·000	58·1	61·8	70·3	53·3	75·5	12	43·1	18, 19	·320	52	37	11, 29, 30
July ...	24·000	62·0	66·0	75·2	56·9	83·7	11	43·5	24	·325	43	31	12
August ...	24·000	62·9	65·7	73·9	57·6	85·5	21	52·9	10	·342	44	31	21
September	24·000	57·5	63·0	72·6	53·7	79·1	13	36·8	30	·286	42	35	14
†October ...	24·000	53·5	58·5	68·4	48·6	77·7	4	41·8	7	·277	53	28	3
November													
December													
Year ..	—	—	—	—	—	—	—	—	—	—	—	—	—

* From 9th June. † To 8th October. ‡ Approximate. Instruments removed to Polymedia.

Maritzburg, Natal. Lat. 29° 3′ 0″ S.

January ...	29·596	75·5	80·0	94·0	66·0	111·0	23	59·0	19, 24	·595	57	30	14, 31
February...	27·647	71·5	74·0	81·0	62·0	103·0	24	56·0	17	·564	61	34	21
March ...	27·702	68·5	72·5	86·0	59·0	100·0	13	50·0	27	·511	61	30	12
April ...	27·207	63·5	68·0	82·0	54·0	97·0	16	43·0	7	·416	55	27	24
May ...	27·864	60·5	65·0	81·0	51·0	94·0	2, 3, 15	38·0	30	·374	53	27	4
June ...	27·781	56·5	62·0	79·0	45·0	87·0	15	39·0	10, 27, 30	·278	41	23	28
July ...	27·865	53·5	61·0	79·0	44·0	87·0	5, 28	56·0	29	·244	40	23	22
August ...	27·802	57·5	65·0	79·0	52·0	99·0	28	31·0	2	·266	39	22	6
September	27·752	62·0	66·0	79·0	54·0	96·0	7	42·0	25	·361	40	26	1, 10
October ...	27·715	63·5	66·0	79·0	53·0	102·0	21	44·0	4, 25	·398	55	28	20
November	27·694	68·5	69·0	79·0	59·0	101·0	17	45·0	18	·492	60	30	30
December	27·623	69·5	74·0	88·0	61·0	109·0	4	52·0	5, 6	·507	56	29	7
Year ...	27·854	64·2	68·3	82·0	55·0	111·0	23rd Jan.	31·0	2nd Aug.	·417	51	22	6th Aug.

at Netley and Stations Abroad in the year 1906.

Long. 30° 1′ 0″ E. Height of Barometer Cistern above Sea, 460 feet.

ness.	Rainfall.			Weather.								Wind.								
				No. of days of								No. of Observations under each Point per Month.								
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
·5	1·48	·31	19	12	—	—	1	—	11	9	—	4	9	9	1	1	3	9	12	14
·0	9·24	2·64	2	18	—	—	4	—	9	4	—	4	4	2	—	—	2	21	10	13
·0	1·97	·60	5	16	—	—	3	—	14	6	—	2	2	1	4	—	3	15	4	31
·0	1·07	·42	2	11	—	1	5	—	11	6	1	—	2	1	3	2	6	12	5	29
·0	2·37	·64	14	14	—	—	5	—	10	2	—	1	—	—	4	3	20	18	2	14
·3	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	3	2	—	5
·5	·03	·03	30	2	—	—	1	—	4	—	—	1	—	—	2	—	3	11	1	21
·0	4·98	2·72	29	8	—	—	2	—	10	5	—	6	1	2	3	—	3	18	1	26
·0	6·24	1·37	5	14	—	2	4	—	1	8	—	1	1	3	—	—	8	24	5	20
-	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Long. 32° 53′ 0″ E. Height of Barometer Cistern above Sea, 5,700 feet.

·5	·61	·41	19	4	—	1	—	—	11	2	—	1	3	—	1	—	5	3	3	28
·0	·79	·79	4	4	—	—	—	—	22	—	—	1	2	1	—	1	1	2	—	54
·0	·71	·36	30	5	—	3	1	—	20	—	—	2	—	—	—	1	—	—	—	59
·5	·01	·01	5	1	—	—	—	—	20	—	—	2	1	—	—	—	3	3	5	46
·0	—	—	—	—	—	—	—	—	6	—	—	4	—	—	—	—	—	2	—	10
-	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Long. 30° 2′ 0″ E. Height of Barometer Cistern above Sea, 2,220 feet.

·0	1·60	·76	6	9	—	—	5	—	9	18	—	2	16	2	18	—	4	—	10	10
·0	4·06	1·82	2	11	—	—	4	—	4	14	—	1	19	4	29	1	1	—	1	—
·9	2·66	1·24	14	10	—	—	5	—	2	12	—	—	24	—	28	4	4	—	2	—
·3	·68	·25	6	9	—	—	2	—	13	8	—	1	24	2	20	2	7	4	—	—
·7	·70	·65	6	3	—	—	1	2	25	8	—	—	19	—	22	3	10	2	6	—
·5	·14	·14	7	1	—	—	1	—	28	—	—	1	17	—	15	—	23	—	4	—
·6	·04	·04	15	1	—	—	—	1	27	4	—	—	17	—	15	—	24	—	4	—
·6	·15	·15	30	1	—	—	—	—	25	6	—	—	25	—	20	—	9	—	8	—
·4	3·30	·98	19	4	—	—	4	—	18	12	—	—	23	—	27	—	8	—	2	—
·3	4·27	·76	18	17	—	—	8	—	17	14	—	—	29	—	21	—	6	—	6	—
·6	7·17	1·71	21	16	—	1	10	—	17	18	—	—	29	—	24	—	5	—	2	—
·0	5·47	1·83	14	10	—	—	10	—	17	14	—	—	27	—	25	—	6	—	4	—
·3	30·24	1·83	14th Dec.	92	—	1	50	3	202	123	—	5	269	8	264	10	107	6	49	10

Annual Abstract of Meteorological Observations taken

ROBERTS HEIGHTS, PRETORIA. Lat. 25° 47′ 40″ S.

Month.	Mean Pressure — Corrected and reduced to 32° Fahrenheit.	Air Temperature.								Tension of Vapour.	Relative Humidity.		
		Mean at 9 a.m.	Mean daily.	Means of		Abs. Max.		Abs. Min.			Per cent.	Min.	
				Max.	Min.	Temp.	Day.	Temp.	Day.		Mean.	Per cent.	Day.
January ...	24·816	64·2	73·0	84·1	61·9	91·0	21	56·7	26	·486	55	33	17
February ...	24·821	63·8	67·7	78·4	57·2	84·8	26	50·0	23	·474	64	27	24
March ...	24·840	60·6	64·4	75·3	54·5	87·6	4	44·3	28	·443	67	25	4
April ...	24·8·6	57·4	60·1	76·8	45·4	84·8	14	33·8	8	·384	54	28	11
May ...	24·938	53·9	56·4	71·6	41·3	78·8	4	33·2	19	·307	54	32	12, 14
June ...	24·968	46·0	49·4	65·9	33·0	70·7	22	26·2	25	·230	50	31	5
July ...	25·005	44·6	48·3	65·8	30·9	74·4	30	21·0	16	·207	48	23	13
August ...	24·959	48·7	52·6	70·1	35·1	8 ·0	23, 24	22·0	4	·223	43	23	29, 30
September	24·906	56·5	61·8	75·8	47·9	86·4	17	32·7	26	·283	45	22	16, 17
October ...	24·855	58·6	62·3	74·7	49·9	87·8	30	44·1	4	·349	56	24	21
November	24·860	62·4	64·6	75·7	53·5	90·2	2	46·2	16	·391	56	25	7
December	24·801	60·3	70·8	77·4	54·5	87·0	8	46·1	3	·423	59	26	5
Year ...	24·888	56·7	60·9	74·3	47·0	91·0	21st Jan.	21·0	16th July	·350	54	22	16, 17 Sept.

SIERRA LEONE. Lat. 8° 29′ 30″ N.

January ...	29·730	78·6	82·1	90·4	73·8	95·0	3	68·0	10	·767	65	31	10
February ...	29·718	81·0	83·6	91·9	75·3	95·0	4	70·0	21	·796	64	47	3
March ...	29·727	82·1	84·5	92·7	76·4	95·6	12	70·0	20	·802	62	51	1
April ...	29·738	81·3	83·9	91·9	75·9	95·0	20	70·0	25	·816	65	25	11
May ...	29·744	81·2	82·2	89·8	74·7	94·0	4	68·8	27	·834	70	56	1
June ...	29·773	79·6	79·8	87·1	72·5	90·0	7	68·0	15	·832	74	61	2
July ...	29·786	77·2	78·0	83·9	72·1	88·4	1	70·0	19	·830	83	66	1
August ...	29·777	76·5	77·4	83·5	71·4	88·4	23	68·0	23	·812	81	61	6
September	29·765	78·0	78·7	85·4	72·1	90·0	30	68·0	16	·842	80	66	7
October ...	29·743	78·5	79·4	86·6	72·3	91·0	24	67·4	2	·834	77	64	3
November	29·695	80·1	81·6	89·5	73·7	93·4	22	70·0	6	·827	70	56	30
December	29·697	78·1	80·8	88·0	73·6	91·0	1, 17, 19	69·0	28, 31	·822	74	49	28
Year ...	29·741	79·3	81·0	88·4	73·6	95·6	12th Mar.	67·4	2nd Oct.	·818	72	25	11th April

UP PARK CAMP, JAMAICA. Lat. 17° 59′ 0″ N.

January ...	29·823	76·8	77·8	88·5	67·2	93·6	9	64·0	7, 25	·724	66	49	12
February ...	29·816	78·8	78·6	89·0	68·3	91·0	20	65·2	16	·761	66	50	6
March ...	29·818	79·6	79·3	89·4	69·3	95·0	19	65·0	27	·770	65	52	16
April ...	29·805	80·8	80·2	90·4	70·1	94·2	18	66·4	8	·774	64	46	14
May ...	29·769	80·4	80·0	88·8	71·2	95·0	8	69·0	12	·771	64	40	8
June ...	29·751	80·4	80·4	88·6	72·2	93·6	27	69·4	19	·804	68	48	25
July ...	29·744	83·0	81·6	91·4	71·8	94·8	27, 30	70·2	13, 25	·796	65	55	16
August ...	29·792	82·8	82·0	92·5	71·6	95·4	29	69·2	9	·826	63	53	6, 27
September	29·730	82·3	82·3	92·5	72·1	97·2	18	70·2	20, 22	·842	71	51	2
October ...	29·742	81·2	81·2	91·2	71·1	95·3	13	68·2	9	·876	75	60	3
November	29·701	80·8	80·8	91·8	69·9	95·8	1	65·5	21	·819	71	54	30
December	*												
Year ...	—	—	—	—	—	—	—	—	—	—	—	—	—

* Records destroyed by fire after earthquake in January, 1907.

at Netley and Stations Abroad in the Year 1906.

Long. 28° 8′ 15″ E. Height of Barometer Cistern above Sea, 4,957 feet.

Mean Amount of Cloudiness.	Rainfall.			Weather.								Wind.								
				No. of days of								No. of Observations under each Point per Month.								
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
5·6	1·72	·59	2	13	—	1	8	—	3	5	3	14	14	3	9	3	5	7	3	4
5·0	4·90	2·38	10	15	—	1	1	—	8	11	3	6	9	13	5	2	5	5	10	4
5·2	3·56	1·22	6	15	—	2	4	—	8	6	2	12	17	11	—	4	3	7	5	3
2·8	·55	·44	2	3	—	—	—	—	15	4	1	7	3	3	1	3	1	17	15	10
1·3	·07	·05	17	2	—	—	—	—	23	—	1	14	5	3	3	2	1	11	14	9
·7	—	—	—	—	—	—	—	—	26	—	5	11	1	2	1	10	5	8	6	16
·7	—	—	—	—	—	—	—	—	28	—	9	2	1	6	7	7	4	8	7	20
·4	—	—	—	—	—	—	—	—	30	—	7	12	5	2	8	5	4	4	11	11
2·7	·32	·28	22	3	—	—	—	—	17	4	5	27	11	2	—	—	4	2	12	2
5·3	3·18	1·08	11	9	—	1	6	2	10	9	6	20	18	6	2	1	2	4	5	6
6·0	4·24	1·31	10	17	—	3	5	—	5	9	2	25	14	3	1	3	3	3	8	—
5·4	4·83	1·31	1	16	—	1	6	—	4	8	2	22	6	2	2	1	5	11	10	3
3·4	23·37	2·35	10th Feb.	93	—	9	30	2	177	56	46	172	104	53	39	41	42	87	106	88

Long. 13° 9′ 17″ W. Height of Barometer Cistern above Sea, 224 feet.

2·6	—	—	—	—	—	—	—	—	—	—	—	2	2	22	—	2	1	18	2	13
2·4	·34	·31	20	3	—	—	2	—	—	—	—	—	3	15	1	—	2	27	3	5
2·6	1·87	1·23	29	2	—	—	4	—	2	—	—	4	—	9	—	—	—	41	4	4
2·8	·62	·32	24	6	—	—	8	—	—	—	—	3	1	11	—	—	2	40	—	3
3·0	16·56	3·96	25	22	—	—	23	—	—	—	—	3	1	16	—	—	—	25	1	16
3·0	27·67	4·43	22	24	—	—	23	—	—	—	—	1	—	11	1	—	—	30	—	17
3·0	43·59	6·28	15	26	—	—	4	—	—	—	—	—	—	3	—	—	2	31	2	24
3·0	35·30	4·40	29	23	—	—	4	—	—	—	—	—	—	7	1	—	3	41	2	8
3·0	23·20	3·29	14	21	—	—	7	—	—	—	—	2	2	9	—	—	—	38	3	6
3·0	14·18	3·34	20	19	—	—	14	—	—	—	—	1	1	13	—	2	—	27	—	18
3·0	4·35	1·25	5	16	—	—	18	—	—	—	—	—	—	15	—	1	—	22	1	21
3·0	3·24	1·02	10	10	—	—	6	—	—	—	—	1	1	20	1	4	—	12	1	22
2·9	170·02	6·28	15th July	172	—	—	115	—	2	—	—	17	11	151	4	9	10	352	19	157

Long. 76° 56′ 0″ W. Height of Barometer Cistern above Sea, 245 feet.

3·6	·75	·38	13	10	—	—	1	—	1	1	—	11	9	2	12	21	4	—	3	—
3·6	·75	·36	13	4	—	—	—	—	—	1	—	8	7	3	14	13	7	2	2	—
3·6	1·08	·24	13	6	—	—	—	—	—	4	—	9	9	1	12	13	11	1	6	—
4·0	1·63	·74	30	5	—	—	—	—	—	3	—	8	4	2	15	13	14	1	3	—
4·5	11·33	6·19	21	7	—	—	—	—	—	7	—	16	12	1	15	6	3	—	3	—
5·0	11·31	4·15	7	13	—	—	2	—	10	5	—	8	7	3	30	6	2	1	2	1
3·0	·61	·42	2	3	—	—	—	—	6	1	—	6	3	3	44	4	1	—	1	—
3·5	4·97	1·72	8	9	—	—	—	—	1	1	—	4	12	2	39	1	1	2	1	—
5·0	10·22	3·90	30	13	—	—	3	—	2	1	—	7	13	1	31	5	2	—	1	—
5·0	5·26	1·95	17	18	—	—	5	—	—	—	—	11	20	2	21	3	2	—	3	—
4·5	2·15	1·32	6	6	—	—	2	—	1	1	—	8	17	3	20	7	2	1	2	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual Abstract of Meteorological Observations taken

BERMUDA. Lat. 32° 17′ 40″ N.

Month.	Mean pressure — Corrected and reduced to 32° Fahrenheit.	Air Temperature.								Tension of Vapour.	Relative Humidity.		
		Mean at 9 a.m.	Mean daily.	Means of		Abs. Max.		Abs. Min.			Per cent.	Min.	
				Max.	Min.	Temp.	Day.	Temp.	Day.		Mean.	Per cent.	Day.
January ...	29·969	63·4	64·5	68·8	60·2	74·4	4	53·8	7	·507	76	60	2, 8
February ...	29·925	63·9	64·2	68·9	59·5	72·8	9, 13	55·0	18, 22, 23	·533	80	57	20
March ...	29·965	62·5	63·4	68·4	58·5	75·6	30	51·8	18	·494	75	57	22, 23
April ...	29·903	62·9	61·3	65·9	56·7	74·4	29	46·6	3	·479	74	57	13
May... ...	29·964	69·4	69·2	73·5	64·9	76·2	28	59·0	11	·638	81	61	25
June ...	29·964	74·3	74·7	79·4	70·1	82·6	13	63·0	11	·754	81	63	1
July ...	30·054	78·2	79·1	84·0	74·3	86·4	29	71·0	9	·791	73	60	12
August ...	29·991	79·4	79·5	86·0	73·0	88·2	17	71·0	19	·847	75	60	17
September...	29·856	78·1	77·6	82·7	72·9	86·8	2	68·0	23	·826	78	59	27
October ...	29·819	75·4	75·5	80·0	71·0	83·0	3, 4,	67·0	29	·776	83	56	1, 8
November ...	29·903	67·8	68·7	73·3	64·1	78·8	1	51·0	29	·663	74	57	6, 7, 8, 19
December ...	29·965	62·3	62·8	67·3	58·3	72·9	18	51·4	12	·487	80	64	7
Year ...	29·940	69·8	70·1	74·9	65·3	88·2	17th Aug.	46·6	3rd April	·642	77	56	1st & 8th Oct.

FORT CANNING, SINGAPORE. Lat. 1° 16′ 0″ N.

January ...	29·906	79·5	82·7	92·1	73·3	95·0	1, 16	70·0	26	·888	84	68	20
February ...	29·906	81·1	82·8	92·7	72·9	96·0	9, 18	70·0	4, 11,	·902	78	66	15
March ...	29·851	78·8	85·4	92·0	78·7	96·0	28, 29	73·0	20	·774	66	44	23
April ...	29·879	77·8	83·7	86·9	80·4	93·0	25	76·0	4	·823	80	58	18
May... ...	29·863	80·1	85·0	89·7	80·0	93·0	4, 29	75·0	28	·872	78	66	25
June ...	29·842	81·3	88·0	92·6	73·4	96·0	30	69·0	11	·851	74	56	2
July ...	29·828	77·8	83·5	86·0	81·0	92·0	23	80·0	10	·820	78	60	15
August ...	29·824	82·2	82·2	90·6	73·8	94·0	3	69·0	5	·919	78	70	27, 31
September...	29·879	77·8	82·6	90·8	74·5	95·0	11, 12	70·0	2	·825	80	60	2
October ...	29·899	81·5	82·4	91·6	73·2	95·0	29	70 0	7	·908	77	62	12
November ...	29·857	79·9	84·8	89·6	80·1	93·0	4, 26	75·0	28	·877	78	69	14
December ...	29·868	78·3	81·1	88·2	74·1	93·0	8	62·0	29	·861	84	52	1
Year ...	29·833	79·7	83·7	90 2	76·3	96·0	9, 18 Feb. 28, 29 March, 30 June	62·0	29th Dec.	·859	77	44	22nd March

HONG KONG. Lat. 22° 16′ 20″ N.

January ...	30·122	56·9	58·4	64·6	52·0	74·0	9	44·5	2	·402	73	56	4, 19
February ...	29·977	60·2	60·1	65·7	54·6	77·0	22	42·5	2	·487	81	61	27
March ...	30·075	60·3	61·7	68·3	55·1	79·0	21	44·5	7	·469	76	39	7
April ...	29·931	69·3	69·6	75·6	63·6	82·5	26	56·8	1	·652	81	57	9
May ...	29·795	76·8	77·1	83·6	70·6	92·0	17, 22	64·5	1, 3	·793	77	50	30
June ...	29·736	82·3	83·3	90·7	76·0	96·0	17	71·0	2	·865	67	49	2, 3
July ...	29·651	82·2	83·6	90·9	76·3	94·5	5, 14, 17	74·0	19, 23	·893	70	53	11
August ...	29·766	82·8	84·3	92·7	76·0	97·5	28	71·5	31	·870	66	50	12
September*	29·660	79·8	81·0	88·5	73·5	92·5	8	70·5	30	·840	71	47	10
October ...	29·462	72·2	75·4	84·0	66·8	93·5	2	59·8	24	·558	56	35	21
November ...	30·132	64·1	66·9	76·0	57·8	86·5	2	51·5	20, 28	·437	57	33	14
December ...	30·007	60·6	63·0	71·7	54·3	83·5	2	45·0	29	·434	66	38	13
Year ...	29·859	70·6	72·0	79·4	64·7	97·5	28th Aug.	42·5	2nd Feb.	·642	70	33	13th Nov.

* Typhoon 18th September.

at Netley and Stations Abroad in the year 1906.

Long. 60° 47′ 0″ W. Height of Barometer Cistern above Sea, 151 feet.

Mean Amount of Cloudiness.	Rainfall.			Weather.								Wind.								
				No. of Days of								No. of Observations under each Point per Month.								
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
7·0	6·70	2·48	10	20	—	—	—	—	—	5	—	8	5	1	3	4	12	3	8	18
8·0	8·52	1·94	1	22	—	—	1	—	—	4	—	11	3	2	3	9	6	3	4	15
7·0	6·94	1·96	9	15	—	—	—	—	—	4	—	9	5	1	2	13	10	4	4	14
7·0	3·32	·96	24	13	—	1	—	—	—	1	—	6	4	—	6	7	11	10	13	3
7·0	2·32	1·36	11	9	—	—	1	—	1	4	—	6	8	4	12	14	10	2	6	—
6·0	2·04	1·40	23	8	—	—	—	—	—	3	—	4	1	2	5	5	24	12	5	2
6·0	1·00	·48	6	9	—	—	—	—	—	1	—	—	—	3	44	9	6	—	—	—
6·0	4·46	1·12	20	12	—	—	2	—	—	1	—	1	—	14	10	4	14	3	12	4
6·0	3·82	1·44	15	14	—	—	3	—	—	3	2	5	18	6	10	2	5	2	9	3
7·0	11·74	3·16	12	20	—	—	4	—	—	5	—	2	6	17	18	1	11	—	3	4
6·5	4·96	3·10	16	11	—	—	2	—	—	3	1	5	5	—	4	1	7	5	31	2
7·0	5·36	1·04	24	26	—	—	1	—	—	6	1	1	7	2	9	1	8	7	23	4
6·7	61·18	3·16	12th Oct.	179	—	1	14	—	1	40	4	58	62	52	126	70	124	51	118	69

Long. 103° 53′ 0″ E. Height of Barometer Cistern above Sea, 114 feet.

3·6	12·85	2·16	3	20	—	—	6	—	7	2	—	2	9	5	12	1	10	16	7	—
3·8	5·15	1·12	3	9	—	—	10	—	—	2	—	—	5	5	17	2	17	5	5	—
2·8	8·34	1·40	1	15	—	—	7	—	2	—	—	—	11	2	14	2	19	6	8	—
3·0	8·60	1·80	7	15	—	—	4	—	—	—	—	—	9	13	3	—	25	3	7	—
3·2	3·48	1·12	14	8	—	—	3	—	1	—	—	—	9	—	20	4	19	2	8	—
4·6	3·11	1·11	7	13	—	—	5	—	—	4	—	—	3	12	12	14	11	7	1	—
3·2	7·38	2·42	13	10	—	—	8	—	1	—	—	2	10	1	17	3	16	7	6	—
4·3	5·78	2·16	4	8	—	—	6	—	—	1	—	1	8	1	15	5	14	8	10	—
4·0	8·30	1·15	8	10	—	—	9	—	—	9	—	1	8	3	16	3	14	3	12	—
5·0	8·35	1·08	20	20	—	—	9	—	—	4	—	—	4	9	11	23	7	4	4	—
6·3	32·36	2·76	26, 29	22	—	—	12	—	—	11	—	2	7	1	11	6	15	6	12	—
3·0	10·37	3·15	23	14	—	—	4	—	—	—	—	2	12	—	18	2	17	4	7	—
3·9	114·07	3·15	23rd Dec.	164	—	—	83	—	11	33	—	10	95	52	166	65	184	71	87	—

Long 114° 18′ 16″ E. Height of Barometer Cistern above Sea, 18 feet.

4·7	1·77	·73	31	7	—	—	—	—	5	5	—	—	35	—	1	—	3	3	—	20
7·3	2·06	·82	10	9	—	—	—	—	1	22	—	—	25	13	—	—	1	3	—	14
6·3	2·48	·66	16	13	—	—	—	—	10	14	—	—	29	18	—	1	2	—	—	12
6·3	10·81	2·75	17	16	—	—	5	—	8	13	—	—	30	17	—	—	2	—	—	11
4·2	11·16	2·38	25	14	—	—	—	—	8	5	—	1	6	27	4	9	2	1	2	10
2·9	6·48	1·52	25	15	—	—	—	—	11	3	—	—	—	2	4	14	32	3	2	3
2·6	8·64	2·42	16	16	—	—	—	—	7	4	—	1	—	8	2	9	30	4	5	3
2·0	3·10	1·10	29	10	—	—	—	—	16	2	—	—	—	6	5	6	28	8	5	4
3·3	34·71	6·58	26	23	—	—	—	—	7	5	—	6	6	15	19	2	2	4	4	2
2·1	1·83	1·68	29	2	—	—	—	—	19	1	—	12	10	22	5	—	2	5	5	1
1·4	·17	·14	2	2	—	—	—	—	13	1	—	15	7	17	6	—	2	7	4	2
1·6	·54	·32	23	3	—	—	—	—	20	4	—	8	4	32	2	—	1	4	2	9
3·7	83·75	6·58	26th Sept.	130	—	—	5	—	125	79	—	43	152	177	48	41	107	42	29	91

Annual Abstract of Meteorological Observations taken

Wei-Hai-Wei. Lat. 37° 30′ 0″ N.

Month.	Mean Pressure reduced and reduced to 32° Fahrenheit.	Air Temperature. Mean at 9 a.m.	Mean Daily.	Means of Max.	Means of Min.	Abs. Max. Temp.	Abs. Max. Day.	Abs. Min. Temp.	Abs. Min. Day.	Tension of Vapour.	Relative Humidity. Per cent. Mean.	Per cent. Min.	Day.
January	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19	—	—	—	—
February	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9	—	—	—	—
March	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5	—	—	—	—
April	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3	—	—	—	—
May	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8	—	—	—	—
June	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3	—	—	—	—
July	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9, 10	—	—	—	—
August	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17	—	—	—	—
September	—	—	—	—	—	—	—	—	—	—	—	—	—
October	—	—	—	—	—	—	—	—	—	—	—	—	—
November	—	—	—	—	—	—	—	—	—	—	—	—	—
December	—	—	—	—	—	—	—	—	—	—	—	—	—
Year	—	—	—	—	—	—	—	—	—	—	—	—	—

Pekin. Lat. 39° 52′ 16″ N.

January	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14, 15	[illegible]	19	·081	52	33	22
February	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3	·091	54	32	2
March	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15·4	5	·188	53	31	5
April	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10	·223	38	20	22
May	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5	·190	—	—	—
June	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	·112	—	—	—
July	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	·359	—	—	—
August	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	26	·706	69	42	28
September	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	25	·457	59	36	27
October	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	18	·333	66	38	19
November	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2	·150	64	37	20
December	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21	·120	56	35	2
Year	29·065	47·0	54·9	65·9	43·8	105·4	23rd June	5·0	19th Jan.	·251	—	—	—

Scutari Cemetery. Lat. 41° 0′ 0″ N.

January	30·154	39·2	42·1	47·8	36·4	57·4	22	[illegible]	3	·211	76	53	2, 22
February	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	·237	76	49	25
March	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15	·167	69	42	24
April	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	·300	65	38	22
May	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1, 3	·461	75	34	3
June	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	·345	67	42	28
July	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	24	·576	79	33	27
August	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10, 28	·514	85	39	27
September	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	29	·434	61	35	9
October	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	27	·378	74	47	6
November	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16	·297	73	47	20
December	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	25	·268	79	55	30
Year	[illegible]	55·7	59·8	66·2	51·5	93·2	15th July.	25·0	3rd Jan.	·374	69	33	27th July

at Netley and Stations Abroad in the Year 1906.

Long. 121° 7′ 0″ E. Height of Barometer Cistern above Sea, 56 feet.

Mean Amount of Cloudiness.	Rainfall.			Weather.								Wind.								
				No. of days of								No. of Observations under each Point per Month.								
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	Clear Sky.	Overcast	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
7·0	2·41	1·08	9	—	11	—	—	—	—	10	—	8	6	4	5	2	6	18	13	—
7·8	·46	·20	8	1	9	—	—	—	1	14	—	12	10	1	2	2	2	9	12	—
5·0	·33	·28	9	2	2	—	—	—	5	8	3	5	5	2	8	2	7	11	22	—
4·5	·72	·72	20	4	—	—	—	—	9	6	—	4	3	8	4	7	6	12	13	3
5·5	3·30	2·30	6	6	—	—	—	—	1	1	—	6	6	9	9	4	6	13	7	1
5·5	2·02	1·58	27	4	—	—	1	—	2	5	—	—	9	16	9	8	7	5	3	3
6·0	3·75	1·94	9	9	—	—	1	—	3	10	—	6	1	19	11	9	5	5	4	4
6·0	7·57	1·84	15	13	—	—	2	—	1	11	—	2	7	22	7	2	4	6	8	2
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Long. 116° 28′ 54″ E. Height of Barometer Cistern above Sea, 165 feet.

4·3	·04	·04	8	1	6	—	—	—	15	9	—	4	9	4	—	9	6	7	21	—
3·2	·22	·22	18	1	5	—	—	—	18	5	—	9	4	1	7	13	6	3	13	—
3·1	—	—	—	—	1	—	—	—	12	3	—	5	5	4	6	12	9	6	15	—
3·0	·25	·25	16	1	—	—	1	—	6	4	—	6	9	9	1	8	8	4	10	5
3·4	1·18	·50	11	5	—	—	2	—	14	7	—	7	5	5	9	9	14	2	10	—
4·5	1·80	·35	24	7	—	—	4	—	17	12	—	3	7	3	16	12	9	2	8	—
5·3	8·38	2·71	23	17	—	—	10	—	6	11	—	10	14	1	14	5	9	—	9	—
5·0	7·78	4·45	13	14	—	—	5	—	8	10	—	11	11	1	10	6	9	—	14	—
4·4	2·23	·80	7	7	—	—	1	—	12	11	—	9	14	3	4	5	11	1	3	—
4·6	2·13	·98	9	7	—	—	—	—	18	13	—	8	12	—	3	8	17	3	11	—
4·0	—	—	—	—	1	—	—	1	23	5	—	13	10	2	4	5	9	5	12	—
2·0	—	—	—	—	—	—	—	—	26	5	—	16	10	1	4	1	4	—	26	—
3·9	24·01	4·45	13th Aug.	60	13	—	23	1	175	95	—	101	110	54	78	93	111	33	152	5

Long. 29° 3′ 0″ E. Height of Barometer Cistern above Sea, 60 feet.

5·4	2·14	·56	8	12	2	—	—	—	7	8	—	18	9	2	—	4	8	3	1	17
7·2	2·23	·36	11	15	3	—	—	—	2	15	—	19	6	4	3	6	5	—	3	10
5·2	1·86	·39	29	11	2	—	—	—	7	9	—	7	6	—	—	9	17	8	4	10
4·5	2·19	·74	28	6	—	—	1	—	11	5	—	21	10	2	—	4	12	4	1	6
6·2	6·32	2·65	27	14	—	1	1	—	3	8	—	8	6	1	1	10	21	8	—	7
4·1	1·27	·29	5	9	—	1	5	—	5	3	—	15	10	—	—	3	19	9	—	4
3·7	·56	·05	16	7	—	—	1	—	10	1	—	23	3	1	—	3	15	4	2	1
4·0	·88	·75	22	3	—	—	1	—	7	2	—	32	14	—	—	3	6	3	1	3
3·6	1·14	·32	15	5	—	—	1	—	9	3	—	16	17	2	—	4	11	4	1	5
6·6	2·14	1·27	10	12	—	—	—	—	3	12	—	30	10	2	—	2	7	3	2	6
5·8	·82	·35	11	8	—	—	—	1	4	10	—	18	6	3	1	8	9	1	—	14
7·2	6·82	1·37	11	20	1	2	4	—	2	15	—	21	8	4	2	7	11	4	—	5
5·3	28·37	2·65	27th May	122	8	4	14	1	70	91	—	238	105	21	7	63	141	51	15	88

Summary of Results of Meteorological Obser

Stations.	Altitude above Sea Level.	Latitude.	Longitude.	Mean Daily Air Temperature.	Air Pressure—reduced and corrected to 32° Fahrenheit.	Air Temperature.							Tension of Vapour.	Relative Humi	
						Mean, 9 a.m.	Means of		Abs. Max.		Abs. Min.			Per cent.	Min.
							Max.	Min.	Temp.	Date.	Temp.	Date.		Mean.	Per cent.
Mediterranean:	ft. *	° ′ ″	° ′ ″												
Gibraltar ...	53	36 6 20 N.	5 20 53 W.	61·3	29·957	60·4	70·8	51·8	93·0	11 Aug.	31·6	6 Feb.	·451	69	30
Malta ...	112	35 53 49 N.	14 30 54 E.	65·9	29·870	63·3	70·0	61·7	91·4	7 & 8 Aug	44·6	10 Feb.	·485	68	36
Cyprus:															
† Polymedia	460	34 42 30 N.	30 1 0 E.	‡	—	—	—	—	—	—	—	—	—	—	—
Mt. Troodos	5,700	34 54 0 N.	32 53 0 E.	‡	—	—	—	—	—	—	—	—	—	—	—
South Africa:															
Natal... ...	2,220	29 3 0 S.	30 2 0 E.	68·3	27·834	64·2	82·0	55·0	111·0	23 Jan.	31·0	2 Aug.	·417	51	22
Pretoria ...	4,957	25 47 40 S.	28 8 15 E.	60·9	24·888	56·7	74·3	47·0	91·0	21 Jan.	21·0	16 July	·350	54	22
Sierra Leone ...	224	8 29 30 N.	13 9 17 W.	81·0	29·741	79·3	88·4	73·6	95·6	12 Mar.	67·4	2 Oct.	·818	72	25
Jamaica:															
Up Park Camp	245	17 59 0 N.	76 56 0 W.	—	—	—	—	—	—	—	—	—	—	—	—
Bermuda ...	151	32 17 40 N.	60 47 0 W.	70·1	29·940	69·8	74·9	65·3	88·2	17 Aug.	46·6	3 April	·641	77	56
Singapore:															
Fort Canning	114	1 16 0 N.	103 53 0 E.	83·7	29·833	79·7	90·2	76·3	96·0	9 & 18 Feb., 28 & 29 Mar., 30 June	62·0	29 Dec.	·859	77	44
China:															
Hong Kong...	18	22 16 20 N.	114 18 16 E.	72·0	29·859	70·6	79·4	64·7	97·5	28 Aug.	42·5	2 Feb.	·642	70	33
Wei-Hai-Wei	56	37 30 0 N.	121 7 0 E.	—	—	—	—	—	—	—	—	—	—	—	—
Pekin ...	165	39 52 16 N.	116 28 54 E.	54·9	29·065	47·0	65·9	43·8	105·0	23 June	5·0	19 Jan.	·251	—	—
Ataturi Cemetery	60	41 0 0 N.	29 3 0 E.	58·8	29·868	55·7	66·2	51·5	93·2	15 July	25·0	3 Jan.	·374	69	33

* No records. † Earthquakes at Polymedia, 23rd February and 27th March. ‡ Instruments removed from one station to the
records for December destroyed by fire after earthquake in January, 1907. ‖ Typhoon 18th September.

taken at Stations Abroad during 1906.

Mean Amount of Cloudiness.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
	Total.	Max.	Date.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	NW.	Calm.
3·7	32·36	2·46	28 Sept.	77	—	2	8	1	172	87	4	*	*	*	*	*	*	*	*	*
3·5	28·37	3·10	29 Oct.	102	—	6	12	—	103	59	70	49	94	31	72	17	45	66	191	137
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4·3	30·24	1·83	14 Dec.	92	—	1	50	3	202	123	—	5	269	8	264	10	107	6	49	10
3·4	23·37	2·38	10 Feb.	93	—	9	30	2	177	56	46	172	104	53	39	41	42	87	106	88
2·9	170·92	6·28	15 July	172	—	—	115	—	2	—	—	17	11	151	4	9	10	352	19	157
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6·7	61·18	3·16	12 Oct.	179	—	1	14	—	1	40	4	58	62	52	126	70	124	51	118	69
3·9	114·07	3·15	23 Dec.	164	—	—	83	—	11	33	—	10	93	52	166	65	184	71	87	—
3·7	83·75	6·58	26 Sept.	130	—	—	5	—	125	79	1	43	152	177	48	41	107	42	29	91
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3·9	24·01	4·45	13 Aug.	60	13	—	23	1	175	95	—	101	110	34	78	93	111	33	152	5
5·3	28·37	2·65	27 May	122	8	4	14	1	70	91	—	238	105	21	7	63	141	51	15	88

THE PARKES MEMORIAL PRIZE.

President.
The Director-General, Army Medical Service.

Committee.
The Council of the Royal Army Medical College.

Prize Essay Medallists.

1883. Surgeon R. J. Polden, Indian Medical Service.
1886. Surgeon A. Duncan, M.D., Indian Medical Service.
1889. Surgeon R. H. Firth, F.R.C.S. Eng., Medical Staff.
1892. Surgeon-Captain R. H. Firth, F.R.C.S. Eng., Army Medical Staff.
1895. Surgeon-Major R. Ross, Indian Medical Service.
1898. Surgeon-Captain F. Smith, Army Medical Staff.
1901. Captain H. A. L. Howell, Royal Army Medical Corps.
1904. Major R. Caldwell, Royal Army Medical Corps.
1907. Major F. Smith, D.S.O., Royal Army Medical Corps.

The following is the subject for the next prize :—

The Part played by Blood-sucking Insects in the Causation and Spread of Disease in Man, and the Measures to be Recommended for the Prevention of such Diseases.

(*Note.*—The Essay must include the results of personal observation and research.)

The Prize is Seventy-five Guineas in Money and a Bronze Medal, and is Awarded Triennially.

The Competition is open to Medical Officers of the Royal Navy, Army, and Indian Services of Executive Rank on full pay, with the exception of the Professors and Assistant Professors of the Royal Naval Hospital, Haslar and the Royal Army Medical College, London, during their term of office. Essays to be sent to the Secretary of the Prizes Committee, Royal Army Medical College, Millbank, London, on or before the 31st day of December, 1909. Each essay to have a motto, and to be accompanied with a sealed envelope bearing the same motto and containing the name of the competitor. The successful essay becomes the property of the Prizes Committee.

C. E. P. Fowler, Major, R.A.M.C.,
Secretary, The Prizes Committee.

THE ALEXANDER MEMORIAL PRIZE.

President.
The Director-General, Army Medical Service.

Committee.
The Council of the Royal Army Medical College.

Prize Essay Medallists.

1870. Assistant Surgeon A. B. R. MYERS, Coldstream Guards.
1873. Surgeon F. H. WELCH, F.R.C.S. Eng., Medical Department
1876. Surgeon-Major J. H. PORTER, Medical Department.
1879. Surgeon JOHN MARTIN, Medical Department.
1882. Surgeon-Major F. H. WELCH, F.R.C.S. Eng., Medical Department
1885. Surgeon JOHN MARTIN, Medical Staff.
1888. Surgeon R. H. FIRTH, F.R.C.S. Eng., Medical Staff.
1891. Surgeon R. H. FIRTH, F.R.C.S. Eng., Medical Staff.
1894. Surgeon-Captain C. BIRT, Army Medical Staff.
1897. Surgeon-Major C. BIRT, Army Medical Staff.
1900. No Medal awarded.
1903. Major F. SMITH, D.S.O., R.A.M.C.
1906. Major F. SMITH, D.S.O., R.A.M.C.

The following is the subject for the next prize :—

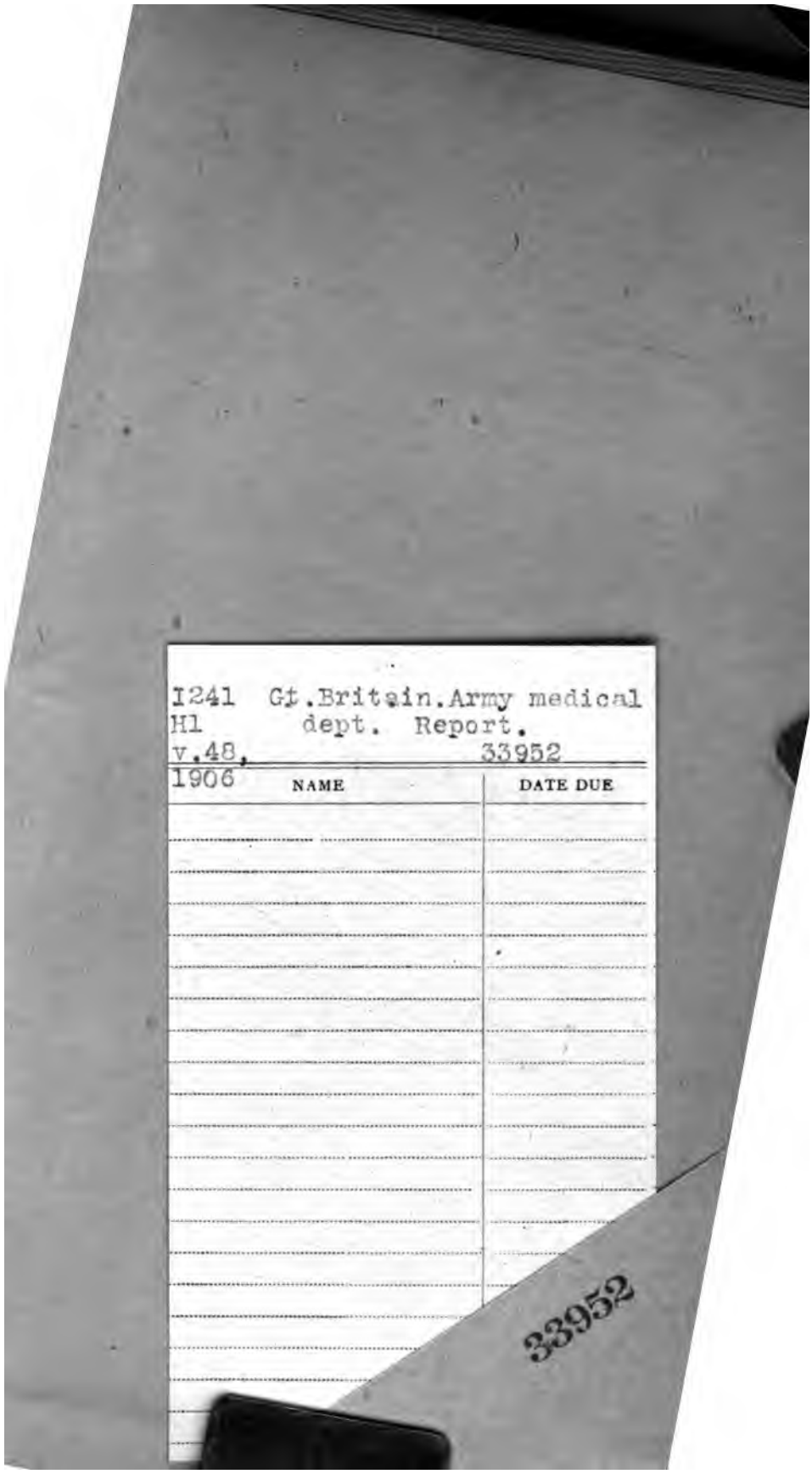
FUNCTIONAL AND ORGANIC DISEASES OF THE HEART IN THE ARMY; THEIR PREVALENCE AND INFLUENCE ON EFFICIENCY; THEIR CAUSES; SUGGESTIONS FOR PREVENTIVE MEASURES; AND THEIR TREATMENT.

(The essay should embody the results of personal observation and research.)

The Prize is Fifty Pounds in Money and a Gold Medal, and is Awarded Triennially.

Essays must reach the Secretary of the Prizes Committee, Royal Army Medical College, on or before 31st December, 1908. They must have a brief motto, and be accompanied by a sealed envelope similarly superscribed, containing the name and address of the author. No essay should exceed about 20,000 words, exclusive of tables, which may be added in the form of appendices. The competition is limited to executive officers of the Royal Army Medical Corps on full pay. Professors and Assistant Professors at the Royal Army Medical College are not eligible while so employed.

C. E. P. FOWLER, Major, R.A.M.C.,
Secretary, The Prizes Committee.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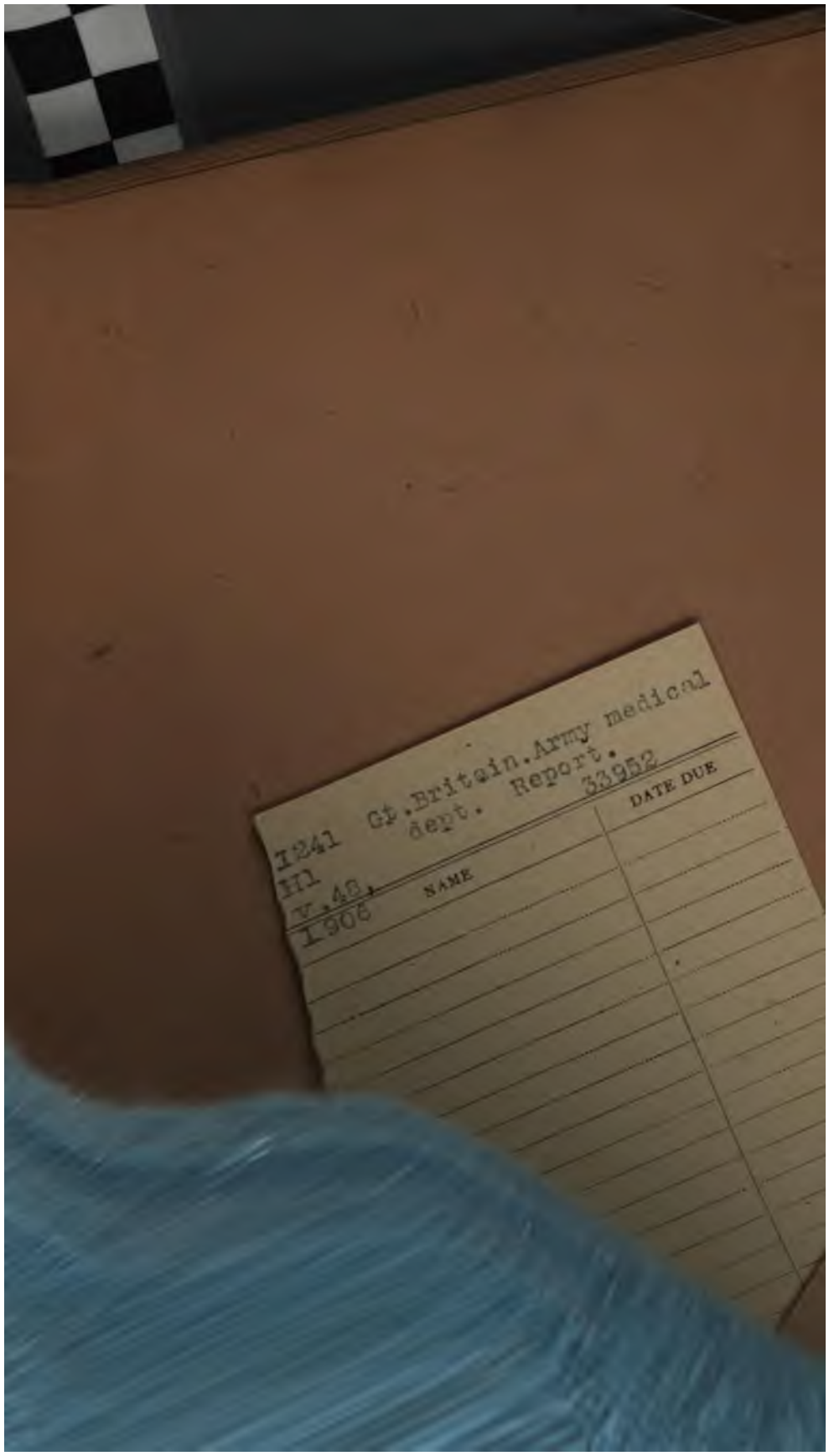
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